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Tallying the Time Zones

Butch Hanna, an astute reader in Salem, N.J., writes, “In your December 2012 issue on page 41, A. Lange & Söhne’s advertisement states that there are 24 time zones in the world. Later, on page 67, Seiko’s advertisement states ‘The new Astron recognizes all 39 time zones on earth.’ Who is correct?”

Mr. Hanna asks a tricky question. World-time watches are all the rage these days. Doubtless it is because of the valuable service they render to math-challenged travelers like myself, who find it difficult to perform complicated calculations such as adding and subtracting digits like 6, or, God forbid, double digits like 11, to figure out the time at home when you are overseas. With a world timer, the home time is there at a glance.

The number of time zones available on world-time watches varies widely, however, which creates confusion. Casio also advertised world-time watches in the December issue (an Edifice and a G-Shock) that give the time in 29 time zones. The Breitling Transocean Chronograph Unitime that is this issue’s cover story (“See the World,” page 38), has 24 time zones. Glashütte Original’s über-complicated Grande Cosmopolite Tourbillon watch (see “Travel Complications” on page 28) has 37.

So, understandably, people want to know: Just how many time zones are there?

The simple answer is 39. But nothing about the time zones is simple. The story of their development and evolution fills books. In short, here’s why the number of time zones in world-time watches ranges from 24 to 39. In the late 19th and early 20th centuries, governments adopted a global time system consisting of 24 time zones. The system developed out of the International Meridian Conference held in 1884 in Washington, D.C., which set Greenwich, England, as the prime meridian and Greenwich Mean Time (GMT) as the global time standard. The world’s 24 time zones were offset from UTC (Coordinated Universal Time) in increments of one hour (for example, UTC+7, UTC-10, etc.).

Some countries, for various reasons, created local time zones offset from Greenwich by 30 or 45 minutes instead of the standard hour. Today there are 13 of these non-standard time zones sprinkled around the globe. These 13 plus the 24 standard zones bring the total to 37.

So how did we get 39? Credit (or blame) goes to the international date line, the imaginary line exactly halfway

around the world from Greenwich at 180° longitude. The date line is not a straight line. Here and there as it traverses the Pacific Ocean, it strays from the longitude line, zigging and zagging in order to keep various Pacific island countries within the same day. These date-line deviations have created two additional time zones. The Republic of Kiribati is a perfect example. Kiribati is an island nation spread over 1.35 million square miles of the Pacific Ocean. The international date line ran right through Kiribati so that when it was Sunday on Christmas Island in the east of the country, it was Monday on Tarawa in the west. In 1995, Kiribati decided to ditch the complicated, dual-date deal, and get the entire country on the same day. It extended the international date line east across two time zones. Thus did the time zones UTC-10 and -11 become, in Kiribati, UTC+13 and +14.

That maneuver, in effect, creates two new time zones. Here’s how: Hawaii and Christmas Island are both located in the UTC-10 time zone. So 5:30 p.m. in Honolulu is also 5:30 p.m. on Christmas Island. The times are the same, but the dates aren’t. Christmas Island is one day ahead of Hawaii. Voilà: two time zones in one.

So if Kiribati is in your travel plans, Seiko’s new Astron is the watch for you. Its space-age GPS system takes account of the additional time zones along the date line. That’s asking a lot of a mechanical watch, of course. Still, that some mechanical watches can give the time in 37 time zones is amazing. We reported on the first one to do so, Vacheron Constantin’s Patrimony Traditionnelle World Time, in our June 2011 cover story. For more about time zones, check out our four-page “Tour of the Time Zones” foldout map in that issue.

SO MANY WORLD
TIMERS WITH
SO MANY TIME
ZONES. HOW MANY
TIME ZONES ARE
THERE, ANYWAY?



Vacheron Constantin’s
Patrimony Traditionnelle
World Time: 37 time zones



Seiko’s Astron GPS Solar:
39 time zones

Joe Thompson
Editor-in-Chief

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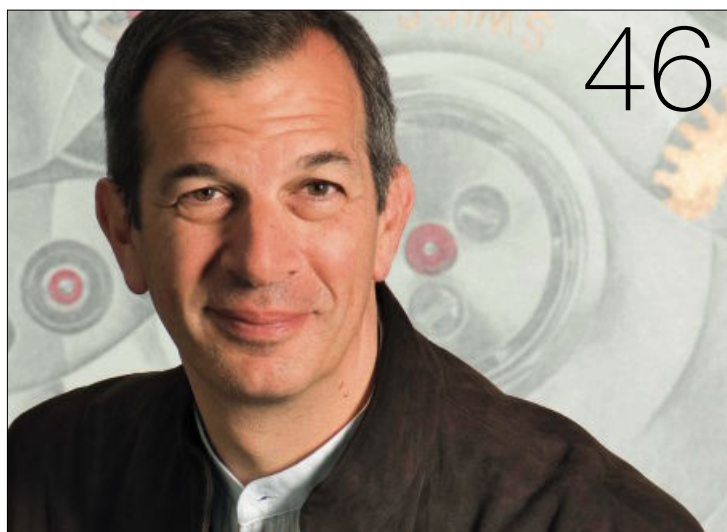
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ON THE COVER: The Breitling Transocean Chronograph Unitime. Photo by Nik Schölzel.



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WatchTime contains bonus content that readers can access via mobile devices. QR codes are on the pages listed below.



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Once you've read our test of the Transocean Unitime, learn more about the history of the Breitling watch company.



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Video

Lets you view a video related to the story



Sound

Lets you hear an audio recording related to the story



Interview

Lets you hear an excerpt from an interview conducted for the story

How to use a QR Code

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NEW MICHAEL SCHUMACHER ROYAL OAK

Audemars Piguet's latest limited-edition Royal Oak watch is the fruit of a collaboration with legendary auto racer Michael Schumacher. The seven-time world champion was personally involved with the development of the model and its car-inspired design elements.



THE BRITAINS ARE COMING: BURBERRY'S NEW WATCHES
Following in the footsteps of brands like Ralph Lauren, Hermès, and Louis Vuitton, the British fashion house Burberry is releasing a new collection of high-end wristwatches with Swiss movements called the Britain.



CHIMES AND BIRDSONG: JAQUET DROZ'S NEW REPEATER
Jaquet Droz has channeled the spirit of its namesake, the 18th-century inventor renowned for his automaton and musical clockworks – many of them using singing birds – with its new ultra-complicated timepiece, the Bird Repeater. Our feature includes a video of the avian automatons at work.



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HUBLOT TEAMS UP WITH CIGAR MAKER ARTURO FUENTE
Luxury watches and luxury cigars are tied together in Hublot's King Power Arturo Fuente edition watch, developed in collaboration with one of the world's most popular premium cigar brands and packaged in a special humidor.



RECORDS FALL AT ANTIQUORUM AND CHRISTIE'S
Recently, two auctions in Geneva achieved new records. Antiquorum obtained the highest price ever paid for a Rolex sports watch. At Christie's, a Patek Philippe once owned by Eric Clapton fetched more than \$3 million, a record for the reference.

OMEGA MOONWATCH COMMEMORATES APOLLO XVII
Omega supplied the watch used in the Apollo XVII mission in 1972, in which astronaut Eugene Cernan became the last man to set foot on the lunar surface. This year, Omega pays tribute to the 40th anniversary of that historic moonwalk with the release of the Omega Speedmaster Moonwatch Apollo XVII Anniversary Limited Edition.



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Digital Media Editor	Mark Bernardo
Art Direction/Design	Publishers Factory, Munich
Contributing Writers	Gwendolyn Benda Gisbert L. Brunner Rüdiger Bucher Maria-Bettina Eich Jens Koch Alexander Krupp Alexander Linz Martina Richter Gerhard Seelen Thomas Wanka Iris Wimmer-Olbort
Translations	Howard Fine Joanne Weinzierl
Photographers	Nina Bauer Marcus Krüger Nicolas Lieber OK-Photography Eveline Perroud Maik Richter Nik Schölzel Zuckerfabrik Fotodesign
CEO	Gerrit Klein
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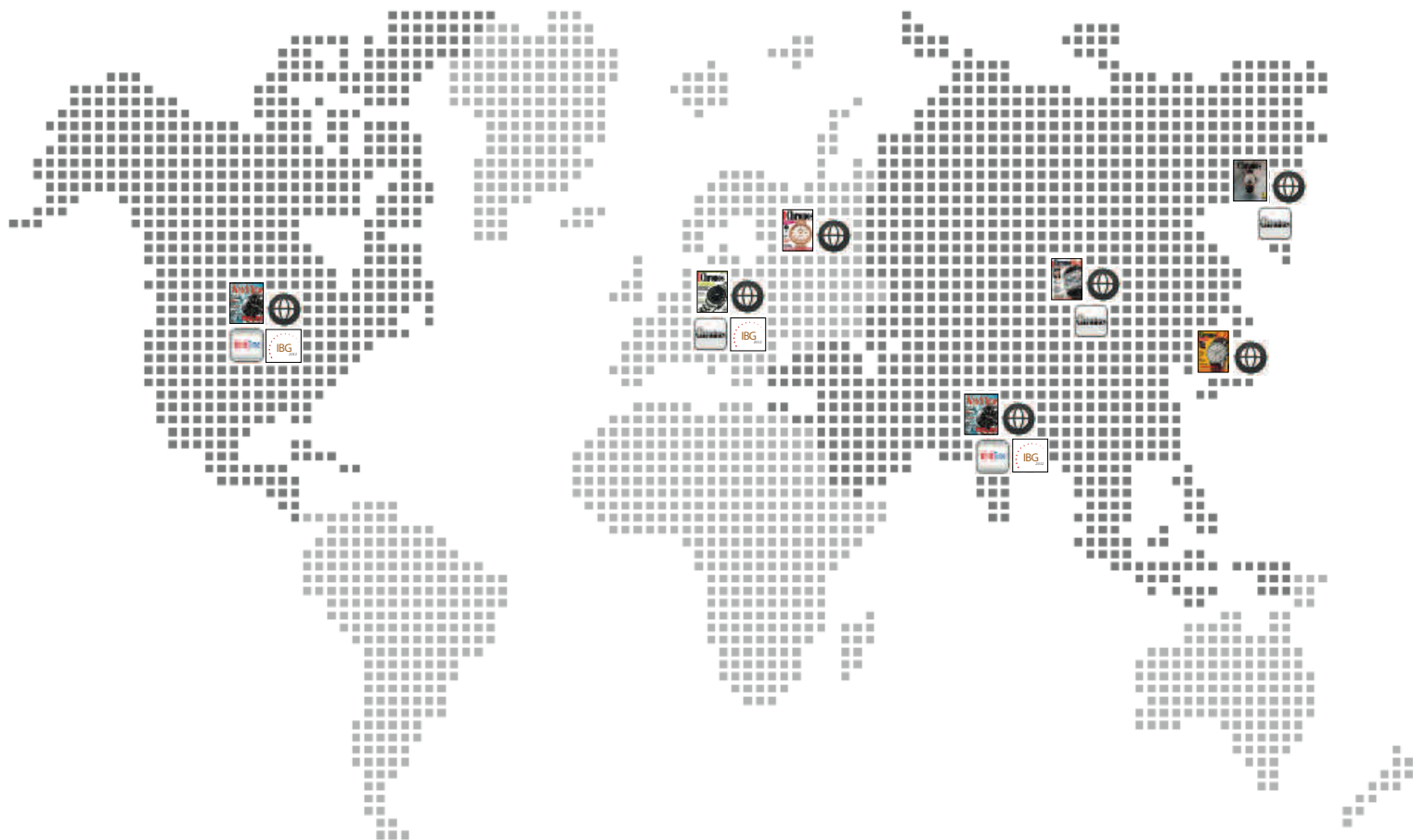
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James Bond and his Omega in "Skyfall"

WatchTime welcomes correspondence from readers. Send comments to editor-in-chief Joe Thompson at 274 Madison Avenue, Suite 804, New York, NY 10016 or via e-mail to jthompson@watchtime.com. Please include your full name, city and state, and country (if outside the United States). Letters may be edited for length or clarity.

"I WANTED TO KNEEL DOWN AND TELL THE BOYS ABOUT MY FIRST WATCH MY DAD GAVE ME WHEN I WAS IN JUNIOR HIGH SCHOOL."

WHAT, NO BOND?

I must say I am quite disappointed with the December issue of WatchTime. Not because of its content, but because of its omissions. In my mind, two big watch-related events occurred in the October/November period that could have made great articles in the December issue. One is Felix Baumgartner [the daredevil, not the watchmaker who co-founded Urwerk] jumping from space wearing a Zenith Stratos Fly-back chronograph outside his space suit. I think this would have made a good article in the magazine as the watch must have gone through temperature, pressure, and velocity changes during the jump. It would have been interesting to read about that.

The other is James Bond. Need I say more? An entire retrospective on all the watches Bond has worn during the 50 years of 23 films would have made this issue a collectible! From Rolex to Seiko, back to Rolex and to Omega. With some Breitling and apparently TAG Heuer thrown in as well! Talking about the models in the new Bond movie "Skyfall" (Planet Ocean and Aqua Terra), plus the 50th anniversary editions (at least two or three models) Omega has put out, would have filled multiple pages of the issue. Perhaps you can put out a special edition on James Bond. I think WatchTime missed a great opportunity on the timing of these events.

Richard Masso
Buda, TX

We covered some of the items you mention at watchtime.com, which is where we put news items like the Baumgartner jump and the Bond/Skyfall Omega models. You'll find a fair amount of Bond-watch bits in the WatchTime print archive at watchtime.com. But the kind of Bond-watch retrospective you desire would, as you suggest, require a special issue. You've planted a seed. JT

NEXT-GEN WATCHTIMERS

During the Labor Day weekend I was at Barnes & Noble looking at magazines (trying to stay cool). As I was trying to slip a magazine back into the shelf, I had to reach over two young

boys sitting on the carpet side by side having a little pow-wow, whispering. As I looked down to see what they were talking about, I saw both kids had a WatchTime in their laps. Each was on a different page. I wanted to kneel down and tell the boys about my first watch my dad gave me when I was in junior high school. It was a Rolex GMT Master. At the end I decided to leave them alone so they could continue.

Wayne Silva
Albuquerque, NM

WATCH DEALERS ON THE WEB

I am an avid watch collector and a loyal reader of your fine magazine. Generally, I purchase a new watch once a year. I am interested in your opinions about all the various websites that promote quality watches, i.e., Breguet, Patek Philippe, etc., at much lower prices than the boutiques and brick-and-mortar retailers. Some of them state that they are official dealers. Are they? Perhaps, this would be a very interesting article in WatchTime, and would clear much confusion.

Guy J. Nanin
Via e-mail

Watch brands are happy to provide a list of their authorized dealers in the United States. Some post them on their websites; others provide toll-free numbers that people can call to check if a specific retailer is, in fact, an authorized dealer. We address the subject of buying luxury watches on the Internet in the article "Buyer Beware" on page 80 of this issue. JT

READER SURVEY RESPONSE

The results of the recent survey of your readers made for interesting reading. Unfortunately, my income, net worth and collection of watches fall far short of the averages reflected in those results. Yet, I cherish my Rolex, Breitling, Bell & Ross, two Omegas and four other watches of lesser value as much, or perhaps even more, than those who have many far more expensive watches. I continue to add to my collection as finances permit.

Fred Myers
Via e-mail

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Richard Paige

Paige's Next Chapter

New old pocketwatches for the wrist, from former Timezone.com owner Richard Paige

Seventeen years ago, watch collector and retailer Richard Paige came across a rudimentary website for watch enthusiasts. It was called Timezone.com, and there wasn't much to it: a few hundred people would check in and discuss watches on its forum. The site had been created by a group of web designers in Singapore with little interest in watches; they were just trying to make a sample web page to show off their design skills.

Paige, however, saw the website's potential. He purchased Timezone in 1997, and built it into the biggest watch website in the world. After a couple of years, he sold it to e-tailer Ashford.com and stayed on as a consultant. When he retired and moved from California, his home for decades, to Honolulu, he expected to be done with watches for good. Five years of round-the-clock website management had dampened his gusto. "I thought

that would be my swan song for the watch world," he recalls.

But it wasn't. "You can't get it out of your DNA," he says. By the mid-2000s, watch designs started to percolate in Paige's head. He began to have hopes for a new breed of American watch that would pay homage to the era when American watch companies were at their finest, in the early decades of the 20th century.

The result is Paige's new limited edition timepiece, the Wrocket: a wristwatch built around a vintage pocketwatch movement. Paige had long been fascinated by what he describes as the "phenomenal" movements found in vintage pocketwatches made by companies like Waltham, Elgin, and Hamilton. Back in the 1980s, when he ran Paris 1925, a watch, art and jewelry store in San Francisco, he had begun to draw up designs for a wristwatch containing a pocketwatch movement. But at the time there was no

The Wrocket has an art deco design and circular hands.



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A Waltham pocketwatch movement inside Paige's wristwatch case

PAIGE HOPES THESE MOVEMENTS WILL TRIGGER A NEW ADMIRATION FOR THE HEYDAY OF AMERICAN WATCHMAKING.

interest in oversize cases that could accommodate large pocketwatch movements, so he tabled the idea. He came back to it recently, in light of the oversize watch trend of the past decade. Paige dusted off his old design concepts and began to hunt down vintage pocketwatches that he could adapt to his own purposes.

Paige reached out to the many contacts among dealers and jewelers whom he had known from his retailing days. "After six months I was able to gather 400 of these movements," he says. He was selective. "I had certain criteria: they had to be at least 15-jewel; I didn't want to use any seven-jewel. And I needed them to be as mint as possible."

Once he had the movements, Paige set to work designing the appropriate cases. "I had to go to the drawing board and become an industrial engineer to figure out

how I could make it into a wristwatch," Paige notes. He wanted to do justice to what these watch brands had been at their peak, while also modifying their designs with his passion for art deco.

What he came up with is a watch that marries top-tier American movements to an elegant, mid-century case and dial design, with circular hands for the hours and minutes to emphasize the "kinetic" feeling that he admired. Paige drew up the prototypes and eventually found a manufacturer in China that could make the parts he needed for the cases. He then assembled the watches himself, back in Honolulu.

His hope is that these watches will trigger a new admiration for the heyday of American watchmaking. Paige notes how advertisements remind us that James Bond wears an Omega, but "people don't realize, Abraham Lincoln wore a Waltham."

And the vintage movements are more than up to snuff – Paige argues that they are comparable in quality to those made by Patek Philippe.

Paige grew up in a family of watchmakers, but originally came to the discipline as a distraction. "I worked in my father's store when I was a kid. And the only reason he taught me watches was because my brother and I would fistfight every day, so he wanted to separate the two of us." Originally, the elder Paige put pocketwatches in front of his son, since the movements were larger and easier for a boy to work with. The first love was the best love, and Paige's passion for pocketwatches has remained.

The first run of the Wrocket is a limited edition, with each watch selling for \$2,400. There will be 199 in steel with a black dial, 50 in steel with a white dial, and 99 in titanium with a black dial. An additional 50 pieces will be made in steel with their original pocketwatch dials and hands preserved, and with rare hunter's-case movements. The watches are available this winter at rpaigewatch.com.

—JAY DESHPANDE

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Travel Complications

Six years were spent making it, eight watchmakers and engineers worked to bring it to life, and only a handful of lucky jetsetters will get to enjoy it. It is Glashütte Original's Grande Cosmopolite Tourbillon, and the manufacturer calls it "the most unusual and sophisticated timepiece" in the company's history.

The Cosmopolite is designed to be the ultimate travel watch, and it is endowed with some impressive technical features. Chief among these are 37 time-zone options (including those with quarter-hour and half-hour offsets from GMT); a perpetual calendar that can be set forward and back across midnight, short months, and even leap years; and the ability to indicate standard and daylight saving time.

A power reserve indicator can be found under the engraved hunter caseback.

The Glashütte Original Grande Cosmopolite Tourbillon

A quick tour of the dial begins with the 24-hour home-time display at 6 o'clock, which is shaded to distinguish day and night. The destination time is displayed via the central hour and minutes hands. The perpetual calendar displays are fairly standard, though their placement slightly above the dial's horizontal centerline is not. The day of the week and a day-night indicator appear at 2:30, while the month and leap year cycle are displayed at 9:30. The trademark panorama date appears at 4 o'clock.

The crowning achievement is placed at the top of the dial: a flying one-minute tourbillon carrying the primary-time display's seconds hand on the cage. This style



of tourbillon was developed in 1920 by the Glashütte master watchmaker Alfred Helwig.

What about those two small windows at 7 o'clock? They display what would normally be the "city ring" information, though not using city names. Instead, Glashütte Original opted to use IATA international airport codes such as FRA for Frankfurt and LAX for Los Angeles. The three-letter codes fit in the small windows and can be easily read. The windows are labeled STD and DST to indicate whether the time zone is observing standard or daylight saving time. IATA codes for locations with standard time zones appear in black, while locations with half-hour time zones appear in blue, and quarter-hour time zones are shown in red. If you don't know all 37 airport codes by heart, don't worry – there's a handy guide engraved inside the hinged hunter caseback.

To change the destination time, or to observe a second time zone, the owner turns the crown at 2 o'clock clockwise to move forward in time, and counter-clockwise to move back. The perpetual calendar indications adjust forward or back accordingly.





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All of this ingenuity is housed in a platinum case measuring 48 mm by 16 mm. The large case size is the result of the movement's 528 components which, when assembled, measure 39.2 mm by 7.2 mm. Seventy jewels and two diamond endstones minimize friction. The manually wound caliber 89-01 runs at a classic 21,600 vph, or three hertz. The 72-hour power reserve is tracked by an indicator that is integrated into the movement and visible through the display back.

Asked how collectors are responding to the size of the watch, Glashütte Original vice president for sales, Dieter Pachner, said knowledgeable people understand that this level of complexity requires space. He also noted that the design team might have made the watch smaller, but they would have sacrificed legibility, for example with the DST and STD displays.

Glashütte Original will produce a limited edition of 25 pieces in platinum. In an admirable move, the company is stating unequivocally that it will not produce this watch in other metals, or with other dials, in coming years. "You will not see this watch in gold in 2014," Pachner said.

THE LARGE 48-MM CASE IS THE RESULT OF THE COSMOPOLITE'S 528 COMPONENTS AND 70 JEWELS IN A 39-MM MOVEMENT.

"The collectors have protection. We will not offer this watch in red gold, in yellow gold, with a black dial, no way. That is not our idea." What we might see are specific complications from this watch used in future watches. "It could be that in two years, we will bring out only the time-zone mechanism, but not all of these complications in this combination," Pachner said.

Glashütte Original is also addressing concerns about possible time-zone changes. To give owners peace of mind, the German brand says that should such a change occur, it will gladly exchange the original city ring for a new one. The brand also offers the owner the opportunity to personalize the watch by having his local airport code added to the time-zone ring.

The Cosmopolite is presented in an oversize box that is almost as impressive

as the watch it houses. The box is made of peat bog oak. Its sides are adorned with a series of maps evoking past voyages of discovery from around the world. Inside the box, a retractable stainless-steel globe covers the watch, while spotlights on either side are available to illuminate the time-piece. When the watch is placed in the box, an integrated winding mechanism connects to the crown at 4 o'clock to ensure that the movement remains wound and running at all times.

Pachner told WatchTime that five to seven pieces of the 25-piece edition will come to the American market. Deliveries were expected to begin late last year, and it will take about 24 months to deliver the entire series. The list price is quoted only in euros: you will need 325,000 of them to secure your place in the exclusive owners' club.

— MIKE DISHER

The Cosmopolite comes in a decorated oak box with an integrated winding mechanism.



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President Obama and his Jorg Gray



Governor Romney wearing his Nixon on the campaign trail

Obama's Back, So Nix for Nixon

This month brings the inauguration of Barack Obama for a second presidential term. The choice of a leader of the free world has meaning for the watch world, too. Since 2007, President Obama has been wearing a specialty Jorg Gray 6500 Chronograph, which will surely continue as the First Watch in the years to come.

President Obama's Jorg Gray first appeared in the summer of 2007, when it was given to him as a gift by the Secret Service attaché responsible for his protection during his presidential campaign. If Jorg Gray is a lesser-known brand now, it was basically anonymous back then: it was purely a private-label company, and the 6500 Chronograph model given to Obama was especially made for sale in the Secret Service employees' store. The 41-mm stainless-steel chronograph features three subdials and is powered by a Miyota OS-20 movement, made by Citizen. In place of the brand logo on the black dial is the seal of the Secret Service.

But in the heated political environment of 2012, Obama's Jorg Gray wasn't the main story. Behind the scenes this election season, as the political wonks argued over Mitt Romney's old tax returns, there was

another debate brewing. What was the watch on Romney's wrist?

Of course there was argument for a period, and accusations of "flip-flopping": the former governor had been seen wearing different watches on different occasions. The New York Times noted that he was wearing a Seiko, and the aficionados at watchuseek.com identified it as a Seiko Windward Kinetic. But then people started to notice a mysterious, all-black watch, and curiosities were piqued yet again.

Now, with the election over, it's time for the nation to come together and confirm the watch's make and model. All along, Romney's mystery watch was ... a Nixon.

No, that's not the "Richard Milhous" variety. Based in Encinitas, California, Nixon is a watch brand aimed at snowboarders, skaters, and surfers. This may not sound like Mitt Romney's target demographic, but Romney purchased a number of Nixons at a surf shop he and his family frequent near his beachfront home in La Jolla.

Romney's model is the Private SS, a subtle matte black watch in stainless steel. The Private SS houses a quartz movement in a 42-mm wide case. For the most part,

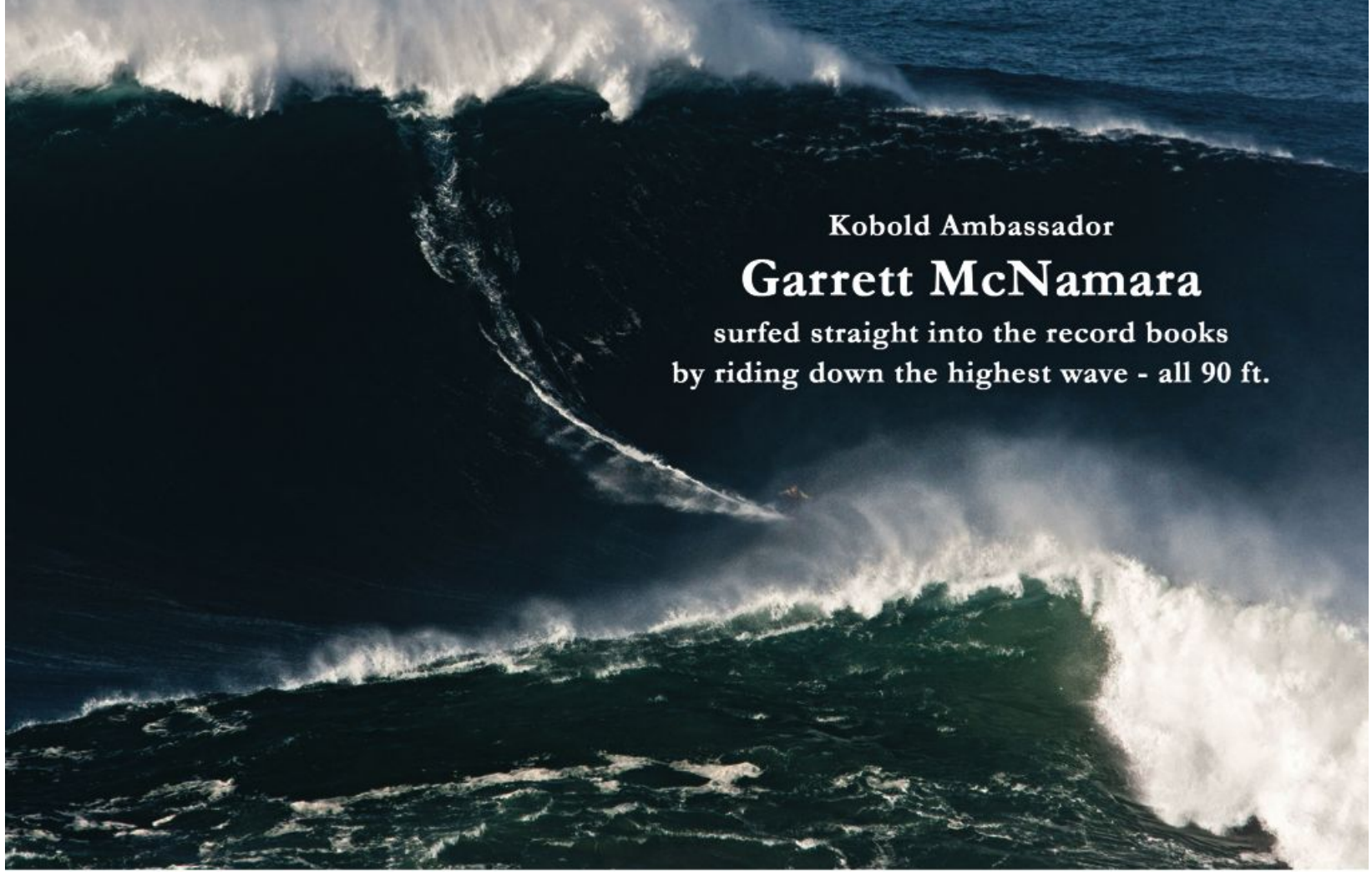
it's a very quiet design: even the Nixon logo on the dial is black on black, making it an alluring challenge for those aiming to identify a watch on the wrist. The most distinguishing characteristic of the Private SS is the unusual presence of two-digit Arabic numerals at the quarter-hour marks: 03, 06, 09, and 12. The Private SS, priced at \$200, is available direct from Nixon.

Obama's Jorg Gray 6500 is an exclusive piece available through the Secret Service Employee Store, but the company sells a limited Commemorative Edition 6500 Chronograph to the public, with prices starting at \$395. Although the Commemorative Edition replaces the original's Secret Service decal with a standard Jorg Gray logo, it features a laser-engraved caseback with the individual serial number and the date of President Obama's first inauguration.

—J.D.



The Nixon Private SS



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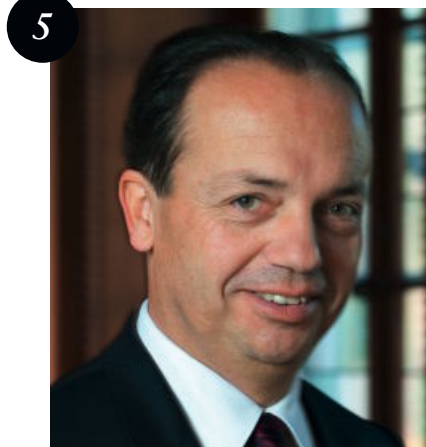
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Who's Who

Can you put names to the faces of these well-known watchmakers and brand CEOs? Their identities are revealed on the following page.



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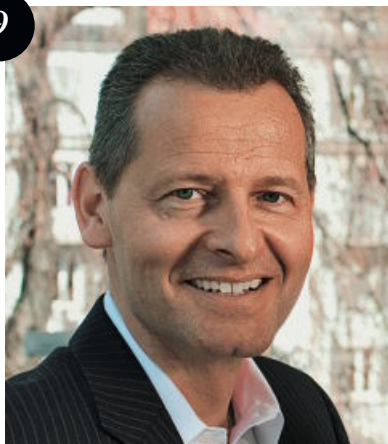
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Who's Who

9



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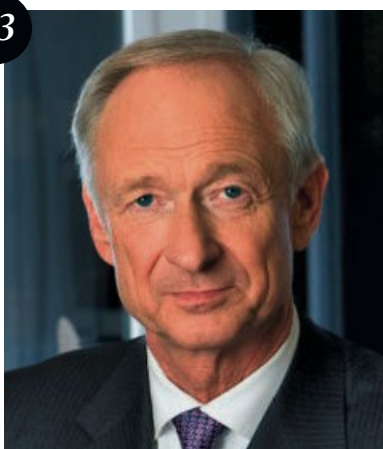
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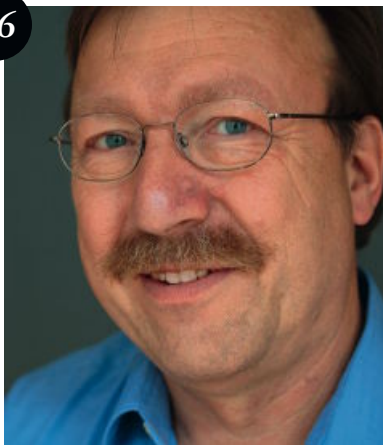
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15



16



Answers: 1 Thierry Stern; 2 F.R. Journe; 3 Richard Mille; 4 Max Büsser; 5 Christophe Claret; 6 Stephen Urquhart; 7 Jean-Christophe Babin; 8 François-Henry Bennahmias; 9 Patric Hoffmann; 10 Wilhelm Schmid; 11 Michel Parmigiani; 12 Ludwig Oechslin; 13 Lutz Bethge; 14 Marc Hayek; 15 Robert Greubel; 16 Paul Gerber

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Pros

- + Attractive design
- + World time is simple to reset.
- + Precise rate

Cons

- The time of day is hard to read.
- The watch may be uncomfortable on a smaller wrist.



See the WORLD

*Breitling's new Transocean
Chronograph Unitime shows the
time in 24 time zones at a single
glance. How did this global
traveler perform in our test?*

BY JENS KOCH

PHOTOS BY NIK SCHÖLZEL



world-time watch shows the time simultaneously in the world's time zones using two rings. One ring is marked with the names of cities representing the time zones, and the other with hour numerals. To see the time in any of the time zones, you find the corresponding city name and read the hour numeral that is next to it.

Breitling introduced its world timer, the Transocean Chronograph Unitime, last year at Baselworld. The watch has a patented world-time mechanism and a *manufacture* movement, the B 05, which is based on the B 01 chronograph movement that Breitling introduced in 2009.

The Unitime traces its roots to a 1950s model of the same name. This self-winding watch with world-time indicator and date display, whose birth coincided with the start of the jet age, was designed for frequent travelers such as airplane pilots.

The new Unitime, with its pale brown calfskin strap, has an attractive, vintage

look. But the extremely large diameter (46 mm) and the high-quality processing of all components establish this model as contemporary. We liked the well-designed hands, the applied indices, the carefully polished case, the impeccably cut strap and even the buckle's prong, which is milled from a solid block of metal. There were, however, considerably more tool marks than we expected to see on the inner surface of the buckle, which has the brand's logo engraved in raised relief.

The prong-buckle closure suits the vintage design. In our opinion, this type

*THE WORLD-TIME FUNCTION OF
THE UNITIME IS THE MOST
COMPLEX ADDITIONAL FUNCTION
GIVEN TO CALIBER B 01 SO FAR.*



*The wide hoop
around the movement
holds the rings for the
world-time display.*

Breitling Transocean Chronograph Unitime

of closure is easier to use than a double-folding clasp. Only a very short piece of metal comes in contact with your skin. Unlike a folding clasp, nothing can press uncomfortably against a bony wrist joint. The softly padded calfskin strap also adds to the wearing comfort. But this watch doesn't fit properly on a smaller wrist, where it has a tendency to slide back and forth.

We also found that the daytime legibility could be better. There's not enough contrast between the steel hands and the silver-colored dial. And the numerals on the 24-hour disk, as well as the names of the cities, are by necessity printed in rather small type. However, the date display is easy to read. At night, luminous material on the hour and minutes hands combines with glow-in-the-dark dots at the hour indices and a double luminous dot at 12 o'clock to provide good legibility.

Using the Unitime is quite straightforward. Everything is set using the crown, which is not threaded and is easy to

grasp. The watch's world-time function operates quite simply. When you travel to another time zone, you pull the crown out to its first position, then turn it forward or back to simultaneously adjust the hour hand, in one-hour increments, the city ring and the 24-hour ring, while automatically adjusting the date to the local time. The central hour hand always points to the time in the zone that you've spun to the top of the dial. You adjust the time display with the crown pulled out to its second position using the hour and minutes hands. The seconds hand stops to allow synchronization with a radio time signal and the 24-hour ring turns along with the central hands, while the city ring stays in place. The chronograph's pushers run smoothly and require just the right amount of force to operate. To reset the date, reposition the hour hand in one-hour increments, which also changes the world-time display. You can move the hand in either direction, so you can reset the date quite quickly even

The chronograph pushers run smoothly and have only a little play.

SPECS

BREITLING TRANSOCEAN CHRONOGRAPH UNITIME

Manufacturer: Breitling Chronométrie, Allée du Laser 10, CH-2300 La Chaux-de-Fonds, Switzerland

Reference number: AB0510/A732

Functions: Hours, minutes, seconds, date; chronograph with counters for 30 elapsed minutes and 12 elapsed hours; displays 24 time zones

Movement: *Manufacture* caliber B 05, automatic, COSC-certified; 28,800 vph, 56 jewels, fine adjustment via index and eccentric screw, Kif shock absorption, Glucydur balance, 70-hour power reserve; diameter = 40 mm

Case: Stainless-steel case with domed sapphire crystal that's nonreflective on both sides, fully threaded stainless-steel back; water resistant to 100 meters

Strap and clasp: Calfskin strap, stainless-steel prong buckle

Rate test:

(Deviations in seconds per 24 hours)

With chronograph switched off / on

Dial up	+1	+2
Dial down	+1	+3
Crown up	+2	+1
Crown down	+6	+5
Crown left	+4	+6
Crown right	+2	0
Greatest deviation of rate	5	6

Average deviation +2.7 +2.8

Average amplitude:

Flat positions	293°	271°
Hanging positions	277°	235°

Dimensions: Diameter = 46 mm, height = 15 mm, weight = 131 g

Variations: With stainless-steel bracelet (\$11,200); rose-gold case with crocodile strap with fold-over clasp (\$30,965)

Price: \$10,715



*The handsome clasp
with Breitling's logo*

though there is no rapid-reset mechanism. Resetting the time zone doesn't change the positions of the minutes and seconds hands: the watch's movement simply continues to run. The time zone can even be reset while the chronograph is switched on.

Breitling's world-time mechanism works well. The only possible mishap could occur if you were to pull the crown out too far when you are resetting the time zone. This would put the crown in the time-setting position, where it stops the seconds hand. If you turned the crown then, you would unintentionally shift the position of the minutes hand. This mistake cannot occur on a world-time watch that uses two pushers to move the time zones forward and backward.

The Unitime has a feature seldom seen on world-time watches: indicators – in this case, red suns – that show which countries observe daylight saving time. The suns are placed one hour to the right of the city names, marking the points at

which the wearer should read the hours during daylight saving time.

But Breitling doesn't solve several other fundamental problems that beset world-time watches, for example, time zones that differ from their neighbors by only half an hour, as is the case in India, Venezuela and parts of Australia. Furthermore, only 24 cities are shown on the dial, so you must know that Detroit is in the same time zone as New York. You'll also need to know that you have to set your watch to Mexico City if you want it to show the correct time in Chicago.

Several other difficulties complicate matters. Not all countries in a particular time zone follow the same policy with respect to daylight saving time: Europe, for instance, observes it, while most African countries don't. Another problem arises when individual countries decide to make changes in their timekeeping policies. Russia, for example, may soon decide to reinstate spring and fall time changes, which it suspended in 2011, when Presi-

dent Medvedev decreed the country would remain on daylight saving time permanently. Needless to say, no world-time watch can automatically respond to these unpredictable, human choices.

THE WATCH'S CHRONOGRAPH function dates back just four years. That was when Breitling, realizing that ETA movements and components would soon be in short supply, introduced chronograph caliber 01, its first in-house movement. This debut was followed by variations with a second time zone (caliber 04) and a hand-wound version, caliber 02, with a 24-hour display. (Caliber 03 has not yet been unveiled.) The world-time function of the Unitime is the most complex additional function given to caliber 01 so far.

Caliber 05 has vertical coupling, a column wheel and bidirectional winding. The movement has a stop-seconds function, the date switches instantaneously, and the escape wheel is protected against shocks. Its system of fine adjustment, via

SCORES

BREITLING TRANSOCEAN
CHRONOGRAPH UNITIME

Strap and clasp (max. 10 points): The calfskin strap is neatly crafted and the attractively polished prong buckle is adorned with the brand's logo in raised relief, but tool marks left by the milling machine were seen on the inner side. **8**

Operation (5): Everything can be reset using the easily grasped crown. The chronograph's pushers run smoothly. **5**

Case (10): The case is neatly crafted and polished; the sapphire crystal is handsome and highly domed; the pushers have only a little play. **9**

Design (15): The attractive vintage design harks back to Breitling's history, but the watch's size gives it a contemporary look. **14**

Legibility (5): There's not enough contrast between the hands and dial, and the lettering on the world-time display is rather small. Luminous material contributes to good legibility in the dark. **3**

Wearing comfort (10): The strap is soft and supple, but this large watch doesn't fit well on smaller wrists. **8**

Movement (20): With vertical coupling and a column wheel, this *manufacture* movement boasts state-of-the-art construction. World time is displayed effectively. **18**

Rate results (10): A very slight gain with and without the chronograph switched on; the greatest deviation among the various positions remains within an acceptable range. **8**

Overall value (15): The high quality of this watch, as well as comparison with its competitors, confirms that the cost-benefit ratio is good. **13**

TOTAL: **86 POINTS**

THE UNITIME TAKES DAYLIGHT SAVING TIME INTO ACCOUNT AND THEREFORE OFFERS AN ADVANTAGE OVER MANY OTHER WORLD-TIME WATCHES.

index and eccentric screw, isn't on a par with the best of haute horlogerie, but this movement has nonetheless proven its worth because the accuracy of all Breitling calibers is COSC-certified. We especially liked the long (nearly three-day) power reserve: if you take off your Unitime on Friday evening, you'll find it merrily running when you reach for it again on Monday morning. Breitling has extended the length of its guarantee to five years for watches that house the brand's own movements, a decision that testifies to the company's confidence in its products.

The Unitime's movement is hidden beneath the steel caseback. This decision is hard to understand, especially since the Transocean Chronograph without world time has a transparent back. It is the only Breitling model manufactured in unlimited series production that is so equipped. Perhaps the explanation relates to the wide metal hoop that surrounds the basic movement and holds the rings for the cities and the 24-hour scale.

This holder is adorned with a sunburst pattern. The rest of the movement is embellished in the usual manner: sunburst on the rotor, Geneva waves on the bridge for the self-winding mechanism, polished heads on the screws, and beveled and polished edges on the round outer sides where the beveling and polishing can be easily accomplished by machine. The stamped steel levers of the chronograph mechanism aren't quite so attractive: they're polished, but they look as simple as their counterparts on the ETA 7750.

Breitling makes its own plates. Its watchmakers insert the jewels and assemble the movement. The balance wheel, which has five spokes, was also made in house. This means that Breitling matches each balance with its hairspring.

This process is extremely important for the accuracy of the watch's rate. Very exact measuring devices must be used to assure that each hairspring is wed to the right balance.

We were, therefore, quite curious to see what rate values our Witschi timing machine (a Chronoscope X1) would find. The test proved that this Breitling chronometer deserves its COSC certification. With a calculated average gain of 2.7 seconds per day, it came very close to perfect timekeeping. The rate was nearly identical when the chronograph was switched on. The greatest difference among the several positions was five seconds with the chronograph switched off and six seconds with it running: both values are within the tolerances permitted for an officially certified chronometer. The amplitude declines rather far in the hanging positions with the chronograph switched on, although it never drops critically low.

Of course, another important number for every watch is the one on its price tag. We were pleased to see that Breitling isn't setting extremely high prices, as are some manufacturers. The Transocean Chronograph Unitime costs \$10,715, which is an appropriate price for a *manufacture* chronograph with a refined world-time display and high-quality craftsmanship. With the sole exception of its less-than-ideal daytime legibility, there's no reason not to take the Unitime along on future journeys around the globe. ○



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Crown

Royal headgear or watch winder?

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Crown | The winding crown is a knurled or fluted button of various shapes, held between the thumb and forefinger and used to wind the watch. Some crowns incorporate a mobile pushbutton for operating a chronograph mechanism or to release the cover of a hunter case.

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The



King of Thin

Why does Piaget make the world's thinnest mechanical watches? Because it can.

BY NORMA BUCHANAN



Piaget is ringing in the new year with, appropriately enough, a chiming watch. Due to be unveiled at Geneva's SIHH watch fair in late January, the watch is a minute repeater, powered by an in-house movement based on Piaget's caliber 1208P. The watch is self-winding and, unusual for a minute repeater, water resistant. But above all, it is thin.

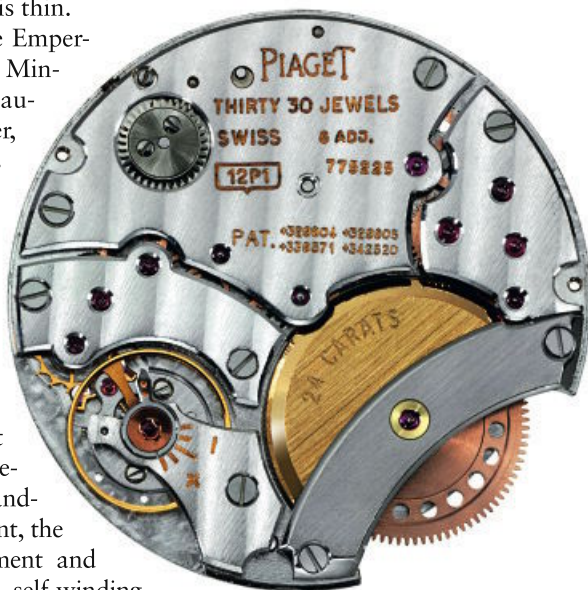
In fact, at 9.4 mm, the Emperador Coussin Répétition Minutes is the world's thinnest automatic minute repeater, beating the previous record-holder, from Patek Philippe, by 0.1 mm.

The record is the latest in a decade-long string of thinness records by Piaget. Since 2003, it has brought out the thinnest automatic tourbillon watch, the thinnest shaped tourbillon movement, the thinnest hand-wound tourbillon movement, the thinnest automatic movement and watch, and the thinnest self-winding skeleton movement and self-winding skeleton watch.

What, you might ask, is Piaget trying to prove?

The company's CEO, Philippe Léopold-Metzger, says the string of ultra-thin mechanical record-breakers is aimed at regaining for Piaget the lustrous, high-horology image it had in the pre-quartz era, when slim was in and Piaget made the thinnest mechanical movements in the world.

(Continued on page 50)



The 12P, launched in 1960, was the world's thinnest automatic movement.

The Thin Lady Sings

It's not easy being thin. Not if you're a mechanical watch, and especially not if you're a minute repeater. Such a watch is expected not just to perform a complex task: ringing out the hours, quarter hours and minutes on demand, but to do so in rich, resonant tones – the horological equivalent of notes sung by a 300-pound opera singer.

Piaget rose to the challenge, and is getting set to unveil the Emperador Coussin Répétition Minutes, at 9.4 mm thick, the thinnest self-winding minute repeater watch ever made. It is the brand's latest pitch to convince watch collectors that, despite its image as a women's jewelry-watch brand, it belongs in the club of high-horology movement makers.

The movement is based on Piaget's 1208P automatic movement, just 2.35 mm thick, the thinnest self-winding movement now on the market. Piaget has added to it approximately 200 components, for a total of 407, resulting in a caliber, the 1290P, which is 4.8 mm thick. It is cushion shaped to fit the case of the Emperador Coussin: if Piaget wants to use it in other cases, the movement will have to be modified.

The movement's components were made by Richemont's movement manufacturing branch, ValFleurier, in Buttes. They were assembled by Piaget's movement factory in La Côte-aux-Fées. Piaget's CEO, Philippe Léopold-Metzger, is proud to point out that his company is among the very few – others include Patek Philippe, Girard-Perregaux, Vacheron Constantin and Jaeger-LeCoultre – to have designed and made a minute repeater itself.

Pierre Guerrier, Piaget's watch product team manager, oversaw the project. "The difficulty for us was to develop the best sound possible, but we also wanted to set a new record. We looked at each component to see if we could reduce its thickness," he says.

Piaget also had to structure the movement so as to take advantage of all available space. That meant inverting the repeater slider so that the mechanism it

activates could be relocated from its normal position to one that would not require as thick a case.

For the same reason, the company has placed the hammers on the back, not the front of the watch. "They are located on the case-back, also to gain more space," Guerrier says. "If we had put them on the dial side, the watch would have to be thicker."

Making the watch water resistant required other adjustments. The space needed for the gaskets was created by making the case wider, not thicker. Original plans called for a 46.5-mm case, but 1.5 mm was added to the diameter for the sake of the extra components. The company decided to make the case water resistant, unusual for a minute repeater, for two reasons. First, Piaget gets much of its business in Asian countries with humid climates: the water resistance is meant to protect the movement primarily from humid air rather than water. Second, Piaget executives say that consumers are more likely now than in the past to wear their high-complication watches often rather than keeping them in a safe.

Because the case is so thin, giving the chiming tones (A# and G# in the fifth octave) the resonance they needed was also a challenge. "We removed the maximum amount of material possible from the case in order for the vibration [of the gongs] to be transformed into sound, taking into account that we have to ensure the solidity of the watch and water resistance," Guerrier says. To do that, Piaget cut holes in the case underneath the bezel and also in the back of the case. "It's like a cheese," Guerrier says. The result, Piaget executives say, is a chime with a loudness of 64 decibels when measured from a distance of 10 cm, with an admirable richness, thanks to three additional harmonics (A#, B and F# of the fourth octave), and with a good damping factor (i.e., the tones are neither too long nor too short).



The new Emperor Coussin Répétition Minutes has an in-house movement that is just 4.8 mm thick.

Two components of the watch were inviolable. One was the hammers, which had to remain relatively thick and heavy in order to produce enough sound. "The most critical point is the strength that you will have on your hammers to beat the gong," Guerrier says. The other was the winding rotor, in this instance a micro-

rotor, which also requires some heft in order to function properly (it's made of platinum for maximum weight). The movement has a power reserve of 40 hours.

The 1290P requires 75 hours to assemble. Casing the movement takes another 25 hours because of the many adjustments needed to perfect the sound.



The Emperor Tourbillon, launched in 2003, had a hand-wound movement just 3.5 mm thick.

(Continued from page 48)

That legacy had all but disappeared when Léopold-Metzger took over in 1999. Piaget had continued to make ultra-thin watches into the 1970s and beyond – it came out with the world’s thinnest quartz caliber to date, the 7P, 3.1 mm thick, in 1976 – but more and more it became known as a women’s jewelry-watch brand. Its women’s watches were status symbols nonpareil, stylish, even avant garde, and they won the brand watch-world fame. (Once, when Fidel Castro praised the jeweled, ultra-thin Piaget that actress Gina Lollobrigida was wearing, she gave it to him in return for his old battle-scarred beater.) But they were a far cry from the thin mechanical movements, like the 9P, the world’s thinnest manual-wind, from 1957, and the 12P, the thinnest automatic, from 1960, that the company had made in its high-horology salad days.

Although Piaget’s reputation has changed, its ability to make ultra-thin mechanical calibers has not. That’s what Léopold-Metzger is trying to prove.

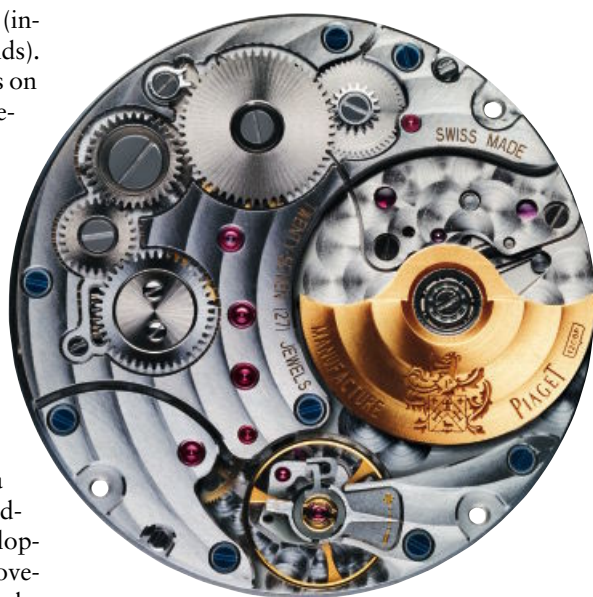
SOON AFTER HE LANDED in his new post, Léopold-Metzger met with his boss, Johann Rupert, chairman of Piaget’s parent company Richemont, to discuss Piaget’s future. “Johann Rupert said to me, ‘You’re going to have a pretty easy job,’” Léopold-Metzger recalls. “‘Piaget is a great brand, with fantastic jewelry watches.’” Yes, it was a quartz brand, and hence not a contender in the high-horology arena, Rupert conceded, but so what? All Léopold-Metzger had to do, in Rupert’s view, was not muck up a good thing.

But Léopold-Metzger saw things differently. By sticking with quartz jewelry watches alone, he would be turning his back on the vast majority of the luxury-watch market, he believed. “If you look at the Swiss-watch export market, one thing has been the same for the past 15 or 20 years,” he says. “Eighty-five percent of the expensive part of the market is accounted for by mechanical watches. If you operate in only 15 percent of that little, little triangle [the upper tier of the market], you are going to be such a niche brand that eventually you are going to die.”

He made the case to Rupert that Piaget should take up the mechanical-watch gauntlet, but not, as others in the high end were doing, by concentrating on complications or sports watches, where there was already much competition (including from other Richemont brands). No, Léopold-Metzger wanted to focus on what Piaget knew best: thin movements. “I told him, ‘I don’t want to be a specialist maker of complicated watches. I just want to do things that are in keeping with my DNA, which is to do very thin watches. That’s what Piaget is strong in. We have the expertise, we have the people.’” Rupert gave him the go-ahead.

Piaget was already making an ultra-thin mechanical movement called the 430P, just 2.1 mm thick, a successor to the famed 9P. Léopold-Metzger turned his attention to developing other ultra-thin mechanical movements and incorporated them in the Altiplano collection, dedicated to sleek, elegant models.

The Altiplano 43 mm (below) contains caliber 1208P (bottom), the thinnest self-winding movement now on the market.



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*The Piaget
movement-making
factory in
La Côte-aux-Fées*

Then as now, the world's men's luxury-watch market was skewed toward chunky watches, but that did not deter Léopold-Metzger. "I wasn't going to be bothered by that," he says. He saw that the total mechanical-watch market was growing, and that men were buying several watches for different occasions. Since the company's production was only about 20,000 pieces per year, Piaget would have no problem selling its watches despite their untrendy slimness.

BUT LÉOPOLD-METZGER had a problem. The brand's mechanical triumphs, most notably the 9P and 12P, lay in the ever-more-distant past. Even though Piaget had for well over a century maintained its mechanical-watch expertise in the small Jura Mountain village of La Côte-aux-Fées – that capability was in fact the reason Richemont had, in 1988, purchased Piaget in the first place – consumers had mostly forgotten about it. Léopold-Metzger needed to re-establish

Piaget's legitimacy as a maker of noteworthy mechanical movements.

"In people's minds we had lost the perception of being a watchmaker brand," he says. To most consumers, Piaget was a quartz-jewelry-watch brand, not a high-horology one.

A handful of snazzy, super-thin complicated models would help solve that problem by highlighting the company's watchmaking expertise, Léopold-Metzger believed. All the more so since the complicated movements, like the simple ones, would be designed and assembled in house.

Assembly occurs in Piaget's factory in La Côte-aux-Fées, where the company was founded in 1874. About 130 people work there, in a quaint-looking building yards away from the house where the Piaget family once lived. Movements are also finished there and some components are manufactured. (The company makes some movements for fellow Richemont brands Cartier, Ralph Lauren and Van Cleef & Arpels.)

(Continued on page 56)

*The Emperor Coussin
Tourbillon Automatic, 10.4 mm
thick, is the world's thinnest
automatic tourbillon watch.*



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View from the Top

Philippe Léopold-Metzger has worked for the Richemont Group's Piaget and Cartier brands for two decades, and has been Piaget's CEO since 1999. Here's some of what he told WatchTime in a recent interview at Piaget headquarters in Geneva:

ON AMERICA

"We're doing well in America, but the market is very difficult. It's a huge market. At the moment we're playing it more regionally than nationally. Our business is highly concentrated in Greater New York, California, Florida, a little around Boston.

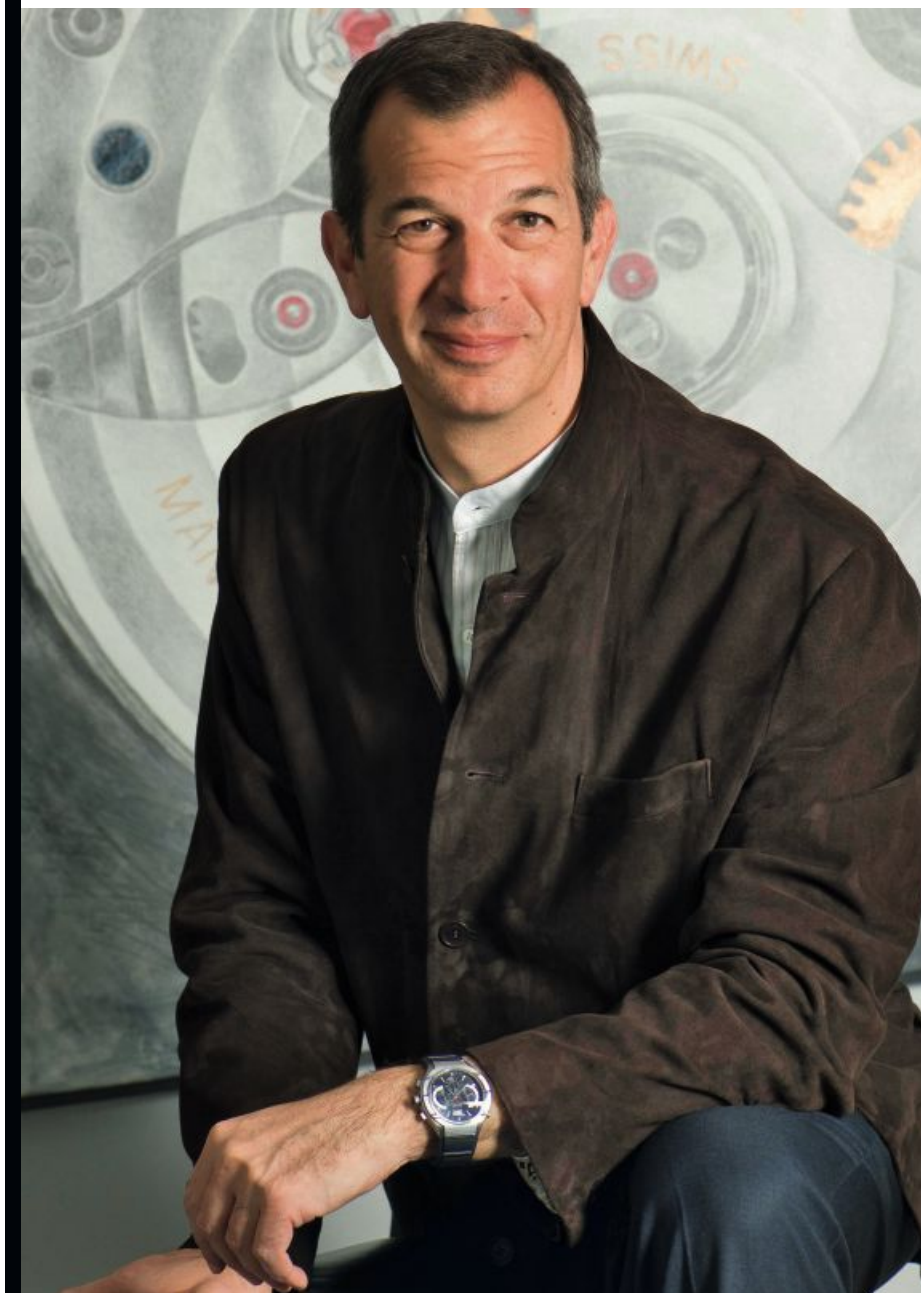
Today I think we're growing. If you look at the numbers, it's not a bad story. It's a very important market for Piaget historically. Now I would say the weight of America has decreased [as a percentage of Piaget's sales] but we have the will to be much stronger there one day. It's a question of the allocation of resources. It's difficult because we have to defend our share in Asia [the brand gets half its sales in mainland China] and also be strong in Europe. We were strong in America in the 1980s, which is when we launched the Polo: it was an American product. America now accounts for six or seven percent of Piaget's sales. To reach 10-percent-plus seems to be something that would be reasonable. I would say my job would not be complete if I were not much stronger in America."

ON CATERING TO BOTH MEN AND WOMEN

"Within the past three or four years, if a magazine has published a technical article about watches, [we've been included in it]. But sometimes if there is an article about jewelry watches, we are not there anymore. It is very difficult to keep the balance, which is why this year is very important: we have an important new complication, the Répétition Minutes, but we also needed a strong new women's watch, so we're launching one at SIHH. We are legitimately both a watchmaker and a jeweler. We have a unique double legitimacy."

ON BREAKING SLIMNESS RECORDS

"To make the thinnest movement is great, but someone's going to beat us one day, for sure. We're not concerned about that. Every movement we make is either the thinnest or nearly the thinnest. We are called the master of ultra-thin movements and we deserve to be called that. If you



*Piaget CEO Philippe
Léopold-Metzger*



The Piaget Polo flyback chronograph, containing the 880P, which is just 5.6 mm thick

take the chronograph, it's 5.65 mm. The tourbillon is 3.5 mm. The manual wind is 2.1 mm. The automatic is 2.35 mm. But the philosophy is that when you do very thin watches you do very elegant watches. [Making elegant watches] is more important than the individual records."

ON THE IMPORTANCE OF MAKING YOUR OWN MOVEMENTS

"The one thing that was important was that I wanted to do everything myself because I had a very basic understanding of luxury. When you're in luxury, you should have everything under your own control: designing, developing, manufacturing, selling. [At Piaget], with the full backing of the owner, I put money back into expanding the *manufacture* and building development teams so that the product would be the star. This would sound logical, but this is not the logic of today. The thinking today is how do

you make your brand stronger using every marketing tool that you have?

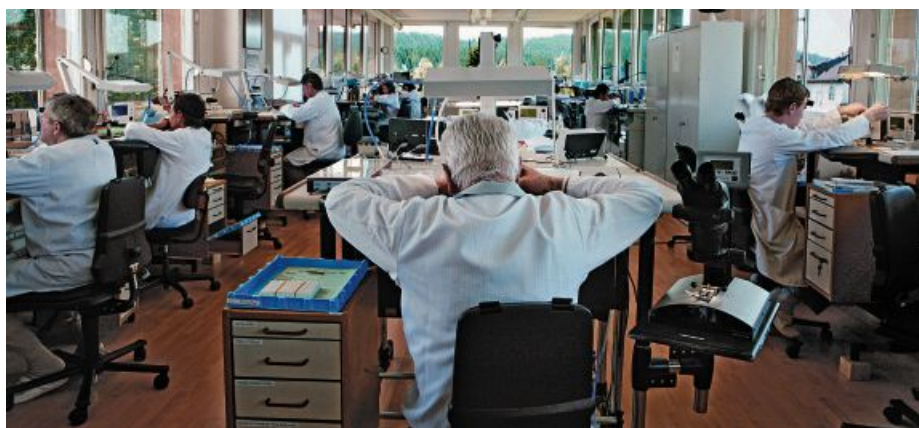
"Other [watch] brands do nothing themselves, but they nonetheless have a good reputation with collectors. It drives me crazy. But I'm animated by a sense of revenge, and eventually we will get there. But it's a frustrating road because you are stuck with the image of a brand with high gold and jewelry content. [Another frustration] is what if the guy who comes after me says, 'Léopold-Metzger was crazy. This was such an incredible jewelry watch, but he had a big ego and forgot about the jewelry-watch business.' Which obviously we did not do."

ON HOW THIN IS NOT IN

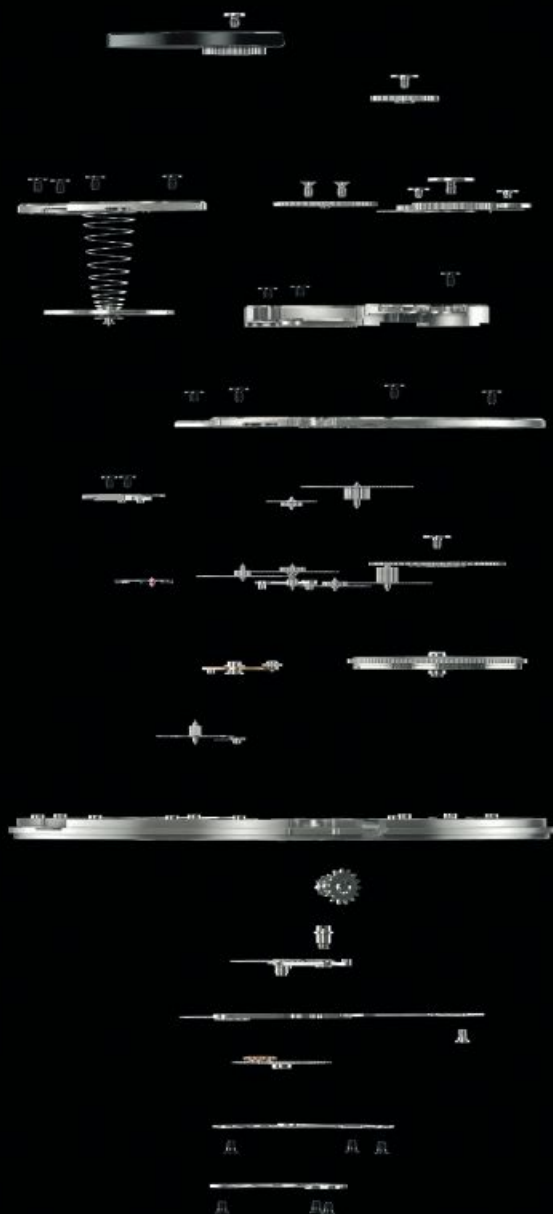
"People say the world is going more elegant, and that people want thinner watches, but I think that's bullshit. The market is getting bigger, it has more segments, and thankfully, the ultra-thin segment is coming back to where it should be. It's part of the market. And men of today, my generation, probably have four or five watches. At the end of the day, you can imagine that someone's going to have a huge watch, a big watch, a thick, a thin – watches for different occasions. Ultra-thin is getting back its *lettres de noblesse*, its noble status ... but tons of people are still buying big watches. Ultra-thin is taking its place, but not at the expense of anyone else."

ON THE NON-CRISIS IN CHINA

"The only market that is a little overstocked today is Hong Kong. But it isn't as if we're suffering from cancellations there. It's always the same: with very limited product, you can never produce enough. The economy is slowing down in China, there's no doubt about it, but there's still a tremendous amount of wealth creation. Sometimes it's the big cities that are the slowest, because for a guy in Shanghai, who's going to spend \$100,000, it's worth getting on a plane and going to Hong Kong or Paris [to avoid the luxury tax in China]. So it's very difficult to know where you stand. But [the situation] is not desperate."



Assembling Piaget movements in La Côte-aux-Fées



An exploded view of the 1200S, the world's thinnest automatic skeleton movement (2.4 mm thick)

**ULTRA-THIN
MOVEMENTS
ACCOUNT FOR 18
OF THE 30 CALIBERS
THAT PIAGET MAKES.**

(Continued from page 52)

Other movement components are made by the Richemont-owned company La Manufacture Horlogère ValFleurier, about six kilometers away from La Côte-aux-Fées in the town of Buttes. Richemont established ValFleurier in 2005 to serve its many watch brands.

Piaget watches are assembled at the very modern Piaget headquarters in the industrial zone in Plan-les-Ouates, just outside Geneva. Other operations, including gem-setting for the brand's jewelry watches, also take place in Plan-les-Ouates.

The Altiplano Automatic Skeleton, 5.34 mm thick, and equipped with caliber 1200S, is the world's thinnest automatic skeleton watch.



The series of ultra-thin complicated watches began in 2003 with a tourbillon watch containing the world's thinnest shaped tourbillon movement: caliber 600P, just 3.5 mm thick. Like the new minute repeater, the 600P was designed specifically to fit into the shaped case of the Emperador collection. Three years later, Piaget introduced the first of its 800 series of calibers, which now includes several very slim complications: an automatic chronograph, a flyback automatic chronograph and an automatic perpetual calendar. All have double barrels and some have power reserves of more than 80 hours. In 2011, Piaget brought out yet another ultra-thin, complicated movement, caliber 1270P, an automatic tourbillon movement that is just 5.55 mm thick.

THE COMPLICATED MOVEMENTS helped get collectors' attention. In the meantime, though, the company continued to break slimness records for uncomplicated

plicated ones. In 2010, the 50th anniversary of the 12P movement, it brought out the 1208P. Just 2.35 mm high, it is the slimmest automatic movement currently on the market.

Ultra-thin movements now account for 18 of the 30 calibers Piaget makes. The Altiplano collection, the centerpiece of the company's "thin" campaign, accounts for one-third of the brand's sales. The emergence of the luxury-goods market in China, where thin, simply styled watches are often preferred to large ones, has confirmed Léopold-Metzger's faith in ultra-thin and given the brand a huge boost: mainland China now accounts for more than half of Piaget's business, says Léopold-Metzger.

But his "slim" strategy has caused him, and his technical staff, some major headaches. Even simple ultra-thin movements are extremely difficult to make. They are so challenging, in fact, that they by themselves elevate companies that master them to high-horology status, says Léopold-Metzger.

"People haven't considered ultra-thin part of high horology, but in fact it is more high horology than anything else because of the constraints of working with parts that are so thin. I don't know how many parts in the Répétition Min-

utes are thinner than a hair, but I would say there are 20 or 30 or 40," he says. "Everything is tougher; it's a lot more intricate." Many ultra-thin calibers have gears that are 0.12 mm thick (gears in standard watches are usually around 0.2 mm).

Ultra-thin watches present other technical hurdles. They're difficult to regulate because their balances are very slim and hence less precise than those in heftier watches. The movements are also relatively fragile. Piaget watchmakers compare working with the razor-thin plates and bridges to trying to assemble tiny bits of metal foil. The slightest slip of the hand could mean the component has to be thrown out. Decorating components is tricky because it means removing metal from an already precariously thin component. (Imagine trying to put Geneva waves on a bridge that is 0.3 mm thick, one of many finishing operations performed in La Côte-aux-Fées.)

Reliability is an innate problem for ultra-thin watches. But Léopold-Metzger says the company has largely erased the reliability gap between his watches and thicker, sturdier ones. "Today, we're much better than we used to be, but the movements are fragile. I don't think we're less reliable than the other brands in the

group. Yes, if you're banging the watch all around [it might stop working], but the guy who has this watch won't wear it when he's playing sports."

The power reserve of an ultra-thin watch is limited because the mainspring barrel can only be so big. But Léopold-Metzger doesn't see that as a problem, either. Most Piaget ultra-thin watches have power reserves of two days, and that's good enough, he says. "We're never going to achieve huge power reserves, but two days is quite sufficient."

Whatever the difficulties of designing and making ultra-thin watches, they're nothing compared to that of changing consumers' long-held views about the brand, Léopold-Metzger says. He's making progress but needs to make more. "What is toughest for me today is convincing watchmaking lovers that we have a real place in the market," he says. ○



Scan here to read more about Piaget's ultra-thin caliber 9P and its in-house chronograph movement, the 880P.
<http://www.watchtime.com/?p=24702>



Piaget headquarters in Plan-les-Ouates





Pros

- + Distinctive design
- + Good rate results

Cons

- Poor legibility
- Low water resistance

WAVE ACTION

BY JULIA KNAUT

PHOTOS BY OK-PHOTOGRAPHY

*We check out the new Legend
42 Annual Calendar model in
Corum's nautically themed
Admiral's Cup collection.*



Twelve symbols representing nautical pennants dot the perimeter of the dial.



Corum launched its Admiral's Cup watch in 1960, naming it after an international yachting regatta that was started in 1957. The original model was square, but in 1983 the company redesigned it, giving it a 12-sided case and replacing the hour markers with colorful nautical pennants that corresponded to the international maritime flag signals. This detail soon became the most identifiable characteristic of the collection. In recent years, Corum has begun altering the pennants, first making them black and white and then reducing them to transparent outlines.

The Admiral's Cup model that we tested has another new feature: an annual calendar, which is adjusted by means of two buttons on the side of the case. The watch has a polished stainless-steel bezel and reflective, multifaceted markers. The well-balanced design seems to have been given more importance than some other aspects of the watch, such as legibility. The dial does not provide much contrast, and the type on the displays is small. We found the hands to be too short and the seconds track on the outer rim of the dial hard to read precisely. However, strong luminous material on the hour, minutes

SPECS

CORUM ADMIRAL'S CUP LEGEND 42 ANNUAL CALENDAR

Manufacturer: Corum, Rue du Petit-Château 1, CH-2301 La Chaux-de-Fonds, Switzerland

Reference number: 503.101.20/0F01 FH10

Functions: Hours, minutes, seconds, months; analog date indicator; hack mechanism

Movement: ETA 2892, "top" grade, with Dubois Dépraz module 5933, automatic; 28,000 vph, 21 jewels, Etachron regulator, Incabloc shock absorber, power reserve = 42 hours; diameter = 26 mm, height = 5.2 mm

Case: Stainless steel, curved sapphire crystal with double-sided nonreflective coating, fully threaded caseback with sapphire crystal; water resistant to 30 meters

Strap and clasp: Crocodile strap with stainless-steel folding clasp

Rate test:

(Deviations in seconds per 24 hours)

Dial up	+4
Dial down	+5
Crown up	+1
Crown down	+4
Crown left	+4
Crown right	+2
Greatest deviation of rate	4
Average deviation	+3.3
Average amplitude:	
Flat positions	260°
Hanging positions	247°

Dimensions: Diameter = 42 mm, height = 10.15 mm, weight = 103 g

Variations: With anthracite dial; rose-gold case with anthracite dial (\$25,900)

Price: \$9,200

THE WATCH
CONTAINS AN
ETA 2892 WITH AN
ANNUAL CALENDAR
MODULE FROM
DUBOIS DÉPRAZ.

and date hands allows you to see the time in the dark. Slight color differences in the luminous material may not be considered a flaw, but they are a visual distraction.

The case, made of stainless steel, is highly detailed and cleanly finished. The top of the bezel is smoothly polished; the sides of the bezel and case have a brushed finish. Upon close inspection, we found a minor shortcoming in the assembly of the case and the bezel: their edges are slightly out of alignment with each other. Another troubling feature of the case is its water resistance of only 30 meters, surprising for a watch with a nautical theme.

The crown is large, fluted and easy to use. A hack mechanism enables you to set the time precisely. You need a pointed object to depress the recessed buttons used to correct the date and month.

The strap is made of crocodile and has a double-folding clasp with stainless-steel deployant buttons, which operate with ease.

Because the caseback is flat with rounded edges, the watch lies comfortably against your wrist. The padded strap and flat clasp add to the wearing comfort.

The strap is supple, but it isn't perfectly made. Although it is carefully

*The movement is
beautifully decorated
and has an engraved
rotor.*



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SCORES

CORUM ADMIRAL'S CUP LEGEND 42
ANNUAL CALENDAR

Strap and clasp (max. 10 points): The standard clasp shows some finishing flaws and sharp edges. **7**

Operation (5): The crown is very easy to grasp and pull out. The strap and clasp also operate easily. **5**

Case (10): Elaborate, nicely finished case, although the edges of the bezel and case do not match up perfectly. **9**

Design (15): Unique and consistent design from the dial to the case, with many different surfaces and finishes. **13**

Legibility (5): The detailed design of the dial has little contrast. The markers and hands are reflective in all lighting conditions, and the date hand and minutes hand are too similar in appearance. **2**

Wearing comfort (10): A rounded case-back and flat clasp make the watch comfortable. **9**

Movement (20): The standard movement, ETA 2892, "top" grade, is enhanced with a Dubois Dépraz module and nice decorative finishes. **14**

Rate results (10): The timing machine test showed very good results and stable amplitude. **9**

Overall value (15): The watch offers unusual design and finishing, plus an annual calendar. **12**

TOTAL: 80 POINTS

stitched and glued, a few places on the clasp show minor finishing flaws and sharp edges.

The watch is equipped with the "top"-grade version of the ETA caliber 2892, enhanced with a Dubois Dépraz module for the annual-calendar display. You can see the beautifully decorated movement, powered by a rotor with elaborate Corum engraving, through a sapphire window in the caseback.

Our test on the timing machine showed very good results. The average

daily gain was only three seconds. The greatest deviation in the various positions was also small, four seconds per day. The amplitude was stable, though not spectacular for an ETA 2892.

The watch's styling creates a lasting impression. For \$9,200, you get a watch with an annual calendar and a distinctive, nautical look, defined by carefully executed and elaborate details. You must be careful not to go overboard while wearing this watch, but you can pass the time on the sun deck following the rhythm of the waves. ○

The annual calendar is adjusted using two recessed buttons on the side of the case.

WatchTime

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now on:
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Nook / Kindle*
(*Kindle coming soon)

*The Nook edition of WatchTime is also available on Android, Windows and Mac OS



Bigger Still

BY MIKE DISHER

*Rolex's movement-making operations
in Bienne used to be huge.
Now they're humongous.*



T

hree years ago, WatchTime toured Rolex's movement manufacturing facility in Bienne. Our story detailing the visit ended with the observation: "Standing in the top-floor restaurant ... we look out through the picture window at an enormous construction project. That, we're told, is Rolex VII. When it's finished, in 2012, it will provide an additional 230,000 cubic meters of space Soon giant Rolex will be bigger still."

Fast forward to 2012. In October, WatchTime returned to Bienne for the official opening of that new building, the first Rolex movement manufacturing facility constructed since 1994. It is part of a huge Rolex complex on the outskirts of the city in an industrial area called Champs-de-Boujean. When Rolex is finished transferring machinery and equipment from elsewhere in the complex into the new building, later this year, all of Rolex's movement-making operations will be under one enormous roof. (Rolex does not divulge its production figures, but in 2011, it made 751,285 mechanical movements. This is the number of COSC certificates it earned that year – the latest year for which COSC data is available. Rolex has all its mechanical movements certified by COSC.)

Rolex acquired the land for the new building from the city, as well as an adjoining parcel for future expansion, in 2006. Construction on the new site began in the summer of 2009 and was completed this past summer.

*THE NEW FACILITY IS PART
OF ROLEX'S ENORMOUS
MANUFACTURING COMPLEX ON
THE OUTSKIRTS OF BIENNE.*



*The building
provides an
additional 230,000
cubic meters
of space.*





Left to right: Bertrand Gros, Marco Avenati and Johann Schneider-Ammann cutting the ceremonial ribbon

The new facility's opening ceremony was typically low key, though for famously discreet Rolex, simply inviting guests and media inside represented a break from the past. There was no band, no flyover, and no fireworks. Instead, two leading Rolex executives – chairman of Manufacture des Montres Rolex SA Bertrand Gros and director Marco

Avenati, and Swiss federal councilor and economics minister Johann Schneider-Ammann, cut a Rolex-green ribbon outside the new building. Then, inside, there were short speeches and a tour.

The new building's interior combines clean, modern design and state-of-the-art manufacturing. The centerpiece is a fully automated component stocking and re-

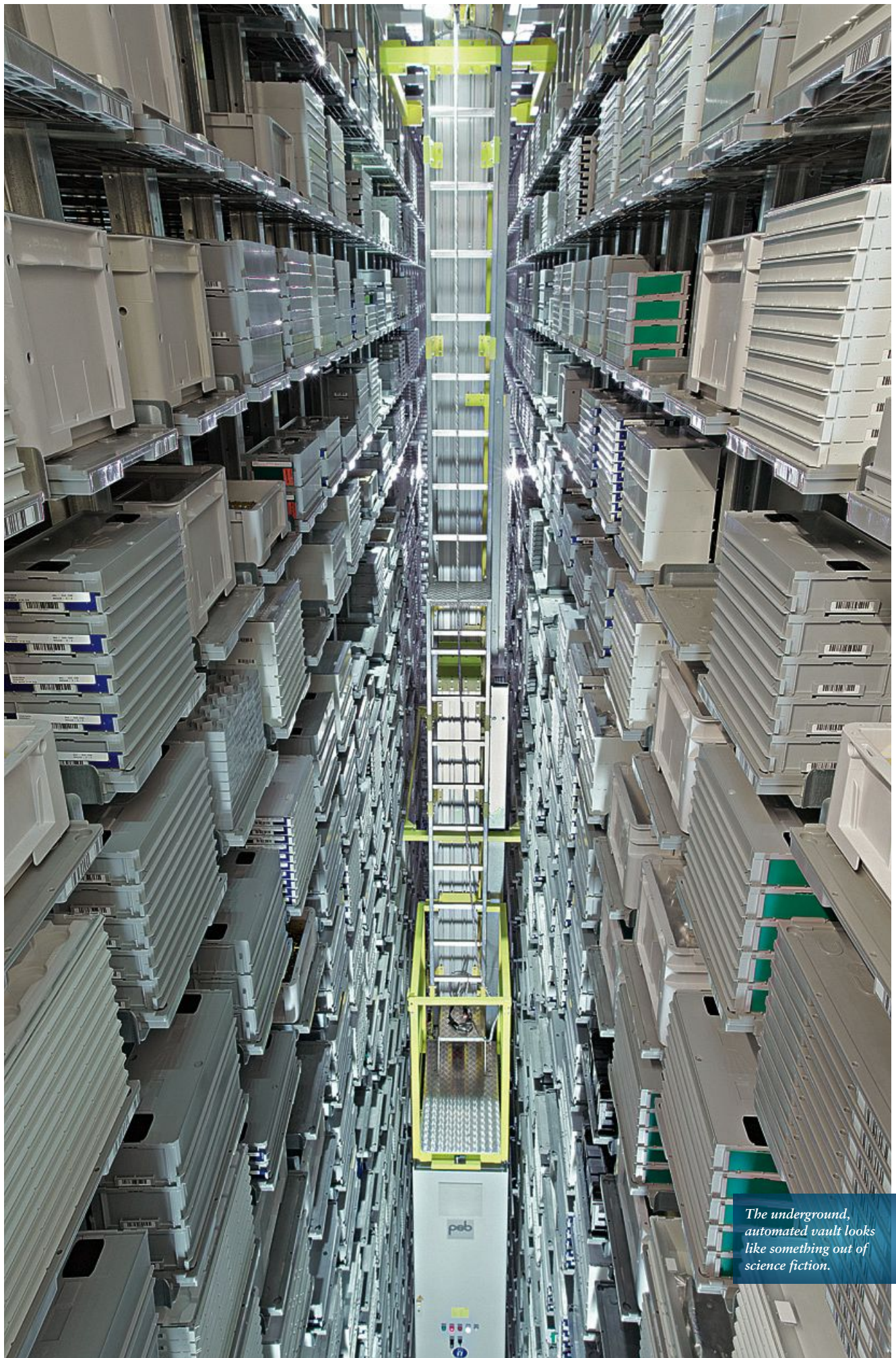
trieval system that uses robots and conveyor belts to collect needed parts and transport them to production workshops throughout the building.

The system is activated when an employee enters an order for parts into the computer. The request is sent to a secure, underground, 10,000-square-foot vault. The vault has 14 aisles of shelves and more than 46,000 storage compartments capable of holding tens of millions of components. Each aisle is served by robots that pick up the requested trays and place them on distribution conveyors that go to the various working areas. The vast conveyor network, almost three-quarters of a mile in length, includes four vertical distribution towers with elevators to shuttle orders between floors. A routing system coordinates 60 programmable controllers which guide the trays between the stock area and the workshops. With trays traveling at about three meters per second, orders reach their final destination in only a few minutes. Workers pick up and drop off trays at 22 distribution stations spread out on all floors. The system even protects components from dust and light.

(Continued on page 75)



Rolex chairman Bertrand Gros at the opening ceremony



The underground, automated vault looks like something out of science fiction.



Movement component orders are prepared for delivery to workshops via the automated distribution system.







*A watchmaker
assembles a caliber
4130 for a
Cosmograph
Daytona.*

*THE COMPLEX
WILL HOUSE
ALL ASPECTS
OF MECHANICAL-
MOVEMENT
MANUFACTURING.*

(Continued from page 70)

To move larger objects, the new building houses a freight elevator large enough to accommodate 240 people and powerful enough to lift nearly 20 tons.

The new building consists of four stories above ground and three below. The exterior is dominated by large glass panes that allow natural light to illuminate the work of the watchmakers and technicians inside. The windows also offer employees sweeping views of the Jura to the north and west and the Alps to the southeast. Internal and external courtyards provide additional natural light, as do a series of visually striking light wells, each of which measures 23 feet in diameter. The light-well layout mimics the wheels in a gear train, and the wells bring daylight to centrally located employee relaxation areas on each floor. Employees also enjoy a cof-

fee bar and a 450-seat restaurant that opens onto a rooftop terrace.

Two adjacent buildings are being refitted to house management and administrative functions and technical activities such as the design and manufacture of tools. Together, the three buildings will offer almost 1 million square feet of space, enough to hold more than 17 football fields. The complex will house all aspects of mechanical-movement manufacturing, including machining, stamping, thermal and surface treatments, maintenance, and laboratory activities.

To protect the planet and pamper employees, the new building complies with Swiss Minergie standards. These criteria cover a range of issues relating to the environment both inside and outside the building, including thermal insulation, draft-free ventilation, internal air filter-

ON THE SCENE
Rolex's new factory

*Each of the building's
light wells is 23 feet wide.*



ing, and use of renewable energy sources. To meet these standards, the new building incorporates groundwater-based heating and cooling, roof-mounted solar panels, high-performance heat pumps, and a partially planted “green” roof, among other features.

The new facility completes Rolex’s vertical integration into four sites – three in Geneva and one in Bienne:

- Geneva, Acacias: This is Rolex’s world headquarters. The facility houses management, research and development, design, communication, sales, and after-sales service. Final assembly of watches from components delivered from other sites also occurs here, as does final quality assurance.

- Geneva, Plan-les-Ouates: This facility houses the development and manufacture of cases and bracelets, along with Rolex’s gold foundry and quality assurance for materials.

- Geneva, Chêne-Bourg: This site houses the development and manufacturing of dials, along with jewelry and gem-setting operations.

- Bienne: This location includes mechanical-movement manufacturing, assembly, and quality assurance.

Together, these facilities employ more than 6,000 people (including more than 2,000 in Bienne), and they allow Rolex to manufacture in house all of the major components in its watches.

With its decade-long vertical integration program now complete, Rolex is indeed bigger still. ○



Scan here to see more photos of Rolex’s facility in Bienne.
<http://www.watchtime.com/?p=24519>



Scan here for a 2010 Watchtime story on the Rolex movement manufacturing facility in Bienne.
<http://www.watchtime.com/?p=24694>





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A counterfeit Rolex watch seized by German customs officials in 2012

BUYER BEWARE

The American Watch Association sounds the alarm about the rise of counterfeit luxury watches on the Internet.

BY JOE THOMPSON

For some watch collectors, the temptation is just too much. “I have seen quite respectable watch collectors with nice collections who couldn’t get their hands on that one limited-edition piece that they wanted,” says Beatrice de Quervain, a veteran U.S. watch executive and most recently head of Hublot North America. “They always buy from their authorized dealer, but then, just for that one piece, they broke down and went to an unauthorized source on the Internet. And sure enough, they got burned. They paid \$20,000, \$25,000.” What they got, de Quervain says, was a counterfeit.

De Quervain’s comments came at a recent meeting of the American Watch Association to discuss the problem of counterfeit watches. AWA invited WatchTime to sit in on the meeting.

The message from the assembled watch company executives and their legal counsels is that, more than ever, watch collectors must be aware – and beware – of the dangers of buying brand-name luxury watches through unauthorized dealers, particularly retail watch sites on the Internet.

That’s because of a recent spike in production of so-called “superfakes,” counterfeit reproductions of popular name-brand models, made primarily in China, that bear a remarkable resemblance to the real thing. “Twenty years ago the fakes were really fake,” says Michael Benavente, managing director of Gucci Watches & Jewelry North America. “You looked at it really quick and you could see it was trash.”



©SANDRO CAMPARDO/CORBIS

Fake watches confiscated by Switzerland's customs authority in 2008

Not anymore. These days, watch executives swap stories about counterfeit watches that are such spitting images of the real McCoy's that the brands themselves have trouble spotting them. It's not just the imitation of what the industry calls "the appearance parts" (case, dial, bracelet, etc.); it's also the quality of the mechanical movements inside. Michel Arnoux, head of the anti-counterfeiting unit of the Federation of the Swiss Watch Industry (FH), cites a counterfeit Hublot Big Bang tourbillon watch seized by Swiss customs officials. Everything about the watch seemed like a real Hublot, down to the vanilla-scented rubber strap. Only on closer inspection did he find tell-tale signs of a fake: a piece of plastic in the case where carbon should be, a crystal that should have been nonreflective, but wasn't. But what was most striking was the movement. "That was one of the first times I've held in my hand a fake tourbillon watch, a real high-precision mechanism," Arnoux told Swiss Broadcasting Corp.'s swissinfo.ch news agency. "The counterfeiters have now mastered ultra-complex movements."

Almost every luxury Swiss watch brand is dealing with the superfake phenomenon, says AWA's chairman, Jon Omer, head of DeWitt America LLC. "We are now faced with a new onslaught, which is getting bigger. We're talking about pieces being sold in excess of \$50,000 and \$100,000 that are counterfeit watches. Everyone has to contend with it." Including watch collectors, Omer says. AWA claims that the only protection a consumer has is to buy from an authorized dealer. (Counterfeit watches should not be confused with so-called "gray-market"

watches. Unlike counterfeits, gray-market watches are produced by a brand, but sold outside the brand's authorized retail network. As with counterfeits, AWA opposes the importation and sale of gray-market goods in the United States.)

AWA AND ITS 30-PLUS MEMBER watch companies have been contending with counterfeiters for decades. The watch companies act independently to protect their trademarks and branded products. Some of them spend fortunes annually in a multi-front battle, working with U.S. Customs and federal, state, and local law enforcement agencies, and even their own private investigators, to fight criminals who steal their intellectual property (IP).

Washington-based AWA works on the legislative and regulatory front. AWA is not a traditional trade association that offers a wide array of member services. Its mission is very specific: to be the voice of its members in Washington, ensuring that the watch industry has input into legislation affecting it on a host of

**"WE'RE TALKING ABOUT
WATCHES BEING SOLD IN EXCESS
OF \$50,000 AND \$100,000 THAT
ARE COUNTERFEIT."**

AWA CHAIRMAN JON OMER

issues ranging from tariffs to regulations on alligator and reptile watch bands to mercury levels in button-cell watch batteries. The association's legal counsel is the prominent Washington, D.C., law firm Covington & Burling.

In the counterfeit fight, AWA has played an important role. "The association was the prime catalyst in moving the 1984 Trademark Anti-counterfeiting Act through the U.S. House of Representatives and on to final enactment," says Executive Director Emilio "Toby" Collado. That act made counterfeiting a felony for the first time. A decade later, AWA led the way in drafting and lobbying for stronger weapons against counterfeiters. "We organized the multi-industry coalition that won enactment of the 1996 act which toughened penalties and gave trademark owners stronger search and seizure rights."

These days AWA is working to pass the so-called "Rogue Websites Bill" (the Protect IP Act of 2011) which would help to shut down Internet sites that sell counterfeit watches. That battle is ongoing, Collado says, in the face of stiff opposition from the Internet industry. "In addition, we are working with others to increase punishments for repeat intellectual property offenders and for IP crimes involving gangs and organized criminal enterprises."

*A counterfeit Patek Philippe watch seized
by U.S. Customs*



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THERE ARE 40 MILLION COUNTERFEIT WATCHES PRODUCED ANNUALLY VERSUS 30 MILLION SWISS-MADE WATCHES.

Normally the watch industry stays mum about its anti-counterfeiting efforts. "We work without fanfare or klieg lights," Collado says. Indeed, the issue of counterfeits is so sensitive that a number of executives at the AWA roundtable spoke to WatchTime only on condition of anonymity. "In our business," says Omer, "we fight counterfeiters below the radar. But this explosion of superfakes is going to have a more and more negative impact, not only on the brands, but on the consumer."

That has prompted AWA to sound the alarm. It recently posted on its website (americanwatchassociation.com) a document it calls "The 10 Evils of Counterfeit Watches" in an effort to raise consumer awareness about what Collado calls the "scourge" of counterfeiting (see sidebar).

THE DOCUMENT SUMMARIZES the main points made by the watch executives and lawyers at the AWA roundtable about why consumers should shun counterfeit watches.

AWA is aware that in the American marketplace, "counterfeit" is not necessarily a dirty word. Some people proudly buy and wear them. David Perlman, counsel for Citizen Watch Co. of America, cites the example of Hermès handbags. "They cost thousands of dollars," he says, "but we all know people who have counterfeit Hermès bags that you can get for a couple hundred dollars. They are looking to get something they know isn't

'real' for fashion or whatever reason. That's the environment we're operating in. It's a cultural thing."

"There's a concept in the consumer's mind that this is a victim-less crime," says Brian Brokate, an attorney who works closely with Rolex North America. "They think 'Who am I hurting? Some big luxury group? Some big Swiss

watch company? Who cares?'"

AWA members argue that there are victims all along the counterfeit watch production and distribution pipeline.

Watch counterfeiting is a huge industry. Switzerland's FH estimates that 40 million counterfeit watches are produced annually, 25 percent more than Switzerland's entire annual output. Counterfeit watch sales amounted to around 1 billion Swiss francs in 2011 (\$1.08 billion), according to the FH. Law enforcement officials say that the counterfeiting industry is dominated by organized crime and uses child labor. China, by all accounts, is the capital of counterfeit watchmaking; its epicenter, according to the FH, is Guangdong province. The FH's Arnoux told swissinfo.ch that one reason for the recent growth in counterfeit watches was that "Chinese triads were looking for new outlets to invest the colossal sums they garnered from online sports betting." Law enforcement officials claim that counterfeiting has links to international terrorism as well.

Moreover, the notion that there is no harm in buying a \$50 counterfeit Rolex because that customer would not have bought

AWA'S 10 EVILS OF COUNTERFEIT WATCHES

In an effort to raise consumer awareness of the problem of counterfeit watches, the Washington, D.C.-based American Watch Association has issued the following warning about counterfeits.

1. Counterfeits fund organized crime and terrorism.

U.S. Customs reports that the sale of counterfeit products funnels billions of dollars to organized crime groups. Increasingly, evidence shows that terrorist groups in the Middle East and elsewhere rely on sales of counterfeits to fund their criminal activities. People who buy counterfeit watches risk funding these activities.

2. Counterfeit watches can pose a hazard to consumers.

Legitimate watch companies observe U.S. laws that regulate the use of lead, cadmium, mercury and other toxic materials in consumer products. Counterfeiters don't have to. As a result, counterfeit watches may contain lead or cadmium paint that, if ingested, could harm children. Authentic watch products don't pose this threat.

3. Counterfeits hurt American jobs.

The International Anti-Counterfeiting Coalition (IACC) estimates that counterfeiting costs U.S. businesses \$200 billion to \$250 billion each year. That results in the loss of more than 750,000 American jobs. Instead, counterfeiters operate for the most part overseas in third-world countries where they can use children laboring in sweatshops at the lowest possible wages. Counterfeit watches are often sold via foreign-based websites using no American employees. Buy a counterfeit and put a U.S. worker out of a job.

4. Consumers get no warranty of protection when they buy a counterfeit watch.

Counterfeit watches don't come with a warranty and authorized watch repairers won't service them. Buying a fake is a bad gamble.

5. Consumers can be fooled by counterfeits.

Consumers who buy a luxury brand-name watch for \$50 probably know they are purchasing a fake. But many counterfeits sell for hundreds, even thousands, of dollars. Consumers who buy these watches probably think they are getting the real deal. When the watch fails and they can't get proper service, they are the ultimate victim.



*AWA Executive
Director
Emilio Collado*

6. Counterfeit watches can be dangerous.

Accurate time can be a matter of life or death to some consumers. Scuba divers and mountain climbers, for example, or people with certain medical conditions, depend on precise timekeeping to avoid harm. Counterfeit watches may not be dependable and may put consumers in danger.

7. Counterfeiting is a growing threat to the American economy.

IACC reports that the global trade in illegitimate goods has grown from \$5.5 billion in 1982 to approximately \$600 billion annually. Because it's based offshore, that increase hurts the United States and helps China and other countries where the fakes are made.

8. Theft of U.S. intellectual property is a serious economic crime.

Not only is counterfeiting a serious crime, it robs U.S. companies of their investments in their trademarks, their research and design, their employees, and their advertising/ marketing programs. Counterfeiters hurt U.S. companies' ability to afford these investments, and hurt the American economy as a result.

9. Counterfeits can put U.S. retail stores out of business.

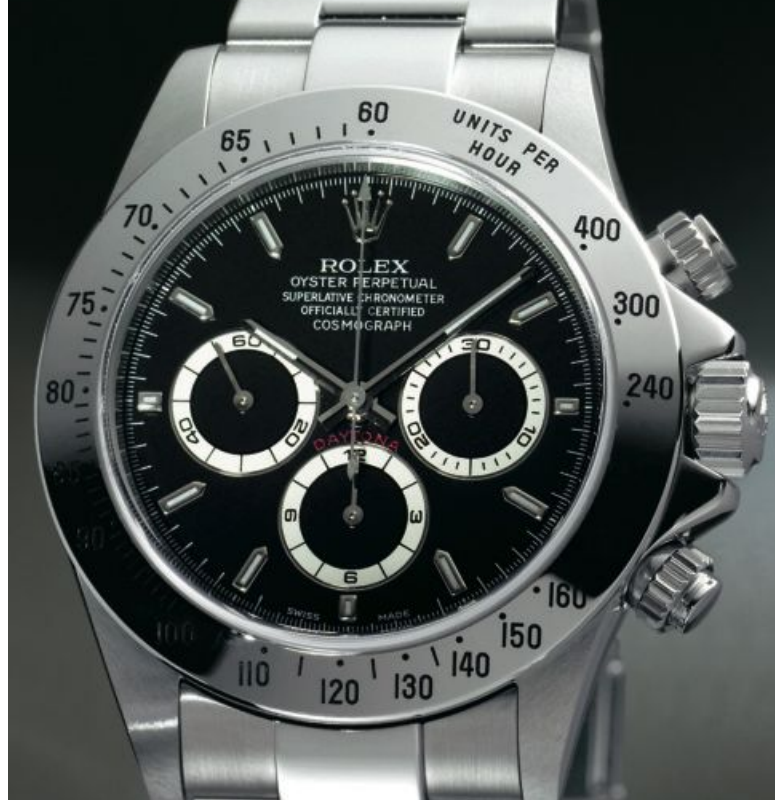
Counterfeit watches are mainly bought online from foreign websites. That's an important reason why so many American retailers have had to lay off sales clerks and even go out of business. Fakes do damage at every level: watch companies, retailers and consumers themselves.

10. Counterfeiting is a crime.

It is a felony to traffic in counterfeit watches. Don't enable criminal activity. Don't buy a counterfeit watch.

Source: American Watch Association

*Spitting image:
the Rolex Daytona on
the left is counterfeit.*



**“BUYING WATCHES ON THE
INTERNET EXPOSES YOU
TO TREMENDOUS RISK.”**

BREITLING USA CEO THIERRY PRISSERT

a real Rolex is a fallacy, the AWA says. There are plenty of negative impacts from such a sale and they add up. The losers in that transaction are the producer of a legitimate \$50 watch and the U.S. retailer and sales clerk who make one less sale. Instead, there's a good chance the sale went to an Internet retailer based outside the United States, who does not employ Americans or pay U.S. taxes.

Another victim: consumer protection. Legitimate watch companies abide by American consumer protection laws, such as the percentage of lead in a watchcase or the ban by some states on mercury in watch batteries. Producers of counterfeits pay no attention to such regulations; their watches can contain toxic materials like lead, cadmium and mercury.

Trademark owners are huge losers. “As brands, we spend our money building brand equities,” says Omer, “through establishing the right retailer partnerships, by spending millions marketing the brand in the correct way. None of these counterfeiters are doing this. They’re parasites just feeding off it.”

Says Patek Philippe USA Chairman Hank Edelman, “Counterfeiting undermines the concept of trademarks. What is the value of a trademark? The whole concept of trademark law is to protect something that has been built over generations. That is being shot down by counterfeiters.” Part of AWA’s message to people who knowingly buy counterfeit goods is that counterfeiting is a crime; buying counterfeit goods supports criminal activity.

Finally, there are the many unsuspecting victims who mistakenly believe the name-brand watch they bought is the real deal. “We have clients coming to the customer service desk in our boutique just to size the watch,” says Thierry Prissert, CEO of Breitling North America. “And we have to tell them, to their surprise, that the watch is counterfeit.” Prissert advocates a strong consumer education program about counterfeit watches. “We won’t fix the problem of the gangs making those watches, but at least maybe we can protect our consumers by telling them that in the watch business, buying on the Internet exposes you to tremendous risk because you expose yourself to a fake watch.”

Meanwhile, the watch company wars against those who steal their intellectual property go on. The counterfeiters are formidable foes. Their ability to duplicate watches continually improves. And not just a brand’s watches; they also create counterfeit boxes, warranties, even its website (so-called “mirror sites”). One brand developed hologram stickers to help distinguish its watches from fakes. The counterfeiters duplicated those, too. Says Citizen’s Perlman, “It’s a never-ending battle for a lot of reasons and you can spend an awful lot of money on it. You can never eradicate the problem entirely, but it’s still worth it. We owe it to our companies, our retailers and our consumers to do as much as we can.” ○

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Pros

- + Manufacture caliber
- + Well-balanced rate behavior
- + Fine craftsmanship
- + Good cost-benefit ratio

Cons

- Occasionally poor daytime legibility



Dynamic duo

*We take a close look at
Montblanc's TimeWalker
TwinFly Chronograph, with
its two central elapsed-time
flyback hands.*

BY MARTINA RICHTER

PHOTOS BY ZUCKERFABRIK FOTODESIGN

CLOSE UP

Montblanc TimeWalker TwinFly Chronograph

Two years ago, Montblanc unveiled the TimeWalker TwinFly Chronograph, which contains a caliber called the MB LL100. The movement has an unusual feature: a center-mounted elapsed-minutes hand. Such hands were common until the mid-1970s, but have since become rare. Rarer still: the elapsed-minutes hand, like the elapsed-seconds hand, is a flyback hand. This feature is the source of the name “TwinFly.”

The MB LL100 has certain features in common with Montblanc’s MBR chronograph calibers, which are used in the brand’s Rieussec watches. (Launched in 2008, their most notable feature is the two rotating disks used to display elapsed seconds and minutes.) These features include the gear train’s translations, the subassembly for the escapement, the column wheel and vertical disk coupling for the chronograph, the setting devices for the time-zone display and date and the movement’s two serially arranged barrels.

When you travel to a new time zone, you can easily reset the hour hand in one-hour increments by turning the crown after it has been pulled out to its middle position. The hour hand is connected to the switching mechanism for the date display, which can be reset either forward or backward.

The time in your home time zone is shown on a 24-hour subdial located at 12 o’clock. This subdial is large enough so the Arabic hour markers are easy to read. Daytime hours arc across the upper semicircle. The numeral 12 on the main dial plays a double role because it’s also used as the 12 on the 24-hour subdial. The sunray-like lines represent the sunlit hours in the inner, upper segment of the circle. Midnight is at the lowest point on



The skeletonized lugs are a hallmark of the TimeWalker collection.



Six screws secure the caseback, which has a sapphire window.

the arc. Stars symbolize night in the lower, inner part of the subdial. Although these decorations are visible only from certain angles, we found them appealing. The arrangement of the daytime and nighttime hours seems quite sensible, too. If we momentarily ignore daylight saving time and other astronomical details, we can say that it's noon when the sun climbs to its highest point in the sky and midnight when it descends to the lowest one below the horizon.

To set the second time zone, pull the crown to its outermost position and then turn it to bring the hour hand into the proper position on the subdial. The watch has a stop-seconds function, so you can synchronize it with a time signal. You can then return the main hour hand to its correct position via the quick-reset function, using the crown pulled out to its middle position.

Although there are no odd numbers in the ring of hours for the second time zone, the even-numbered hours are relatively easy to read. The same cannot be said for the applied indices that mark the hours on the main dial. They're plated with shiny rhodium, but the matte black background seems to swallow them up when you look at the dial from some angles or when light shines on the dial in a certain way. It seems that the designers at Montblanc realized that there could be problems with the legibility of the displays and the visibility of the skeletonized, partly faceted hands: the company has launched two new versions of the TimeWalker TwinFly with gray dials that are much easier to read (they're named "Greytech").

Nighttime legibility is good but we felt that the designers could have left out the luminous markings for the chronograph's elapsed-minutes scale, which is positioned in the inner part of the dial. They serve no purpose because the elapsed-minutes hand doesn't glow in the dark.

The slits cut in the hour and minutes hands are intended to improve the visibility of the chronograph's elapsed-minutes scale. (The elapsed-seconds scale is on the flange along the edge of the dial.) But this solution has its drawbacks. Skeletonized hands aren't really necessary because the elapsed-minutes scale is already larger and more prominently positioned than it is on conventional chronographs. If the elapsed-minutes hand is stopped directly above one of these slits, it covers the slit itself. In the hardest-to-read position, the elapsed minutes cannot be read until you peer through a watchmaker's loupe and find the tiny outermost end of a mostly obscured index mark beneath the elapsed-minutes hand. But this would be a very rare occurrence.

In general, the design seems to work. Thanks to their red segments, the chronograph hands remain surprisingly easy to read, despite their slenderness. The red tip of the elapsed-seconds hand extends exactly far enough to meet the inner end of each full-seconds index. The marks for fractions of seconds are calibrated to match the four-hertz tempo of the movement, but the elapsed-seconds hand isn't quite long enough to reach the inner ends of these fractional markings. The red, inner section of the elapsed-minutes hand also doesn't extend far enough to reach the inner

Montblanc TimeWalker TwinFly Chronograph

SPECS

MONTBLANC TIMEWALKER TWINFLY CHRONOGRAPH

Manufacturer: Montblanc Montre SA, Chemin des Touelles 10, 2400 Le Locle, Switzerland

Reference number: 104286

Functions: Hour, minutes, small seconds, date, quick adjustment of hour hand and date display, second time zone/24-hour display, flyback chronograph with center-mounted elapsed-seconds and elapsed-minutes hands

Movement: In-house MB LL100 automatic; 28,800 vph (4 Hz); 36 jewels; Incabloc shock absorption; flat Nivarox hairspring, screw balance; 72-hour power reserve; diameter = 31 mm; height = 7.9 mm

Case: Stainless steel; domed sapphire crystal nonreflective on both sides, sapphire window in caseback; water resistant to 30 meters

Bracelet and clasp: Stainless steel with double-folding clasp

Dimensions: Diameter = 42.9 mm; height = 15.4 mm; weight = 180.5 grams

Variations: Various dials; with leather strap (\$8,900); Greytech (gray dial) model limited to 888 pieces (\$15,320)

Price: \$9,210

the chronograph's elapsed-seconds hand. This hand is larger than the one on the seconds subdial and, assuming that it's in motion, its red tip is always easy to see. Furthermore, because of the movement's design, it's no problem to keep the chronograph running constantly. The vertical disk coupling assures that the flow of energy between the movement and the chronograph is efficient and doesn't cause excessive wear. And the improved profiles on the gears' teeth contribute to efficiency and low wear. However, don't underestimate how much energy it takes to power four central hands. Beginning at the fourth wheel, the vertical coupling creates a connection to the elapsed-seconds wheel; from there, an intervening wheel establishes another connection to the elapsed-minutes wheel. Various shaped teeth assure that the hands for both the elapsed seconds and minutes turn ceaselessly. In addition to these hands and their designated wheels, two heart cams also turn: they serve to return the chronograph's central hands to the zero position. This is accomplished with one spring-borne lever, which acts on both hearts when the chronograph's hands are reset to zero.



The time can be read in the dark, but the illumination of the chronograph's elapsed minutes and the skeletonized hands can be confusing.

ends of the marks on its scale: we could find no reason why the inner section of this hand, rather than its tip, is colored red. Sometimes the elapsed-minutes counter, like the ordinary time display, is hard to read. This hand's silvery tip isn't easy to see, so you sometimes have to estimate its precise position. This minor flaw detracts somewhat from the advantages offered by the elapsed-minutes circle, which is not only large, but is also calibrated for 60 minutes to coincide with the course of the ordinary minutes display. Five- and 10-minute increments are marked by numerals for even better legibility. We also liked that the elapsed-minutes circle doesn't interfere with the arc for the second time zone or with the subdial for the continually running seconds at 6 o'clock, although the circle twice crosses each of these indicators. We compliment the designers on a job well done here.

The little hand on the continually running seconds subdial, like the other hands, is sometimes hard to see. If you want to confirm that your watch is still running, you're better off checking

The movement's two barrels provide 72 hours of power. Compared with a single barrel, they compensate better for the difference in torque that occurs when the chronograph is switched off and on. This, in turn, keeps the amplitude more stable and achieves a better-balanced rate. Indeed, we found there was almost no difference in the rate when the chronograph was running. With the chronograph switched off and on, respectively, our timing machine calculated average daily gains of 8.7 and 9.0 seconds. The amplitude was impressively stable: it averaged 290 degrees, with a difference of approximately 45 degrees between the flat positions and the hanging ones. Our wearing test reaffirmed the results shown by our timing machine. On the wrist, the TimeWalker TwinFly Chronograph, usually fully wound, gained an average of 8.8 seconds per day whether the chronograph was on or off. This performance isn't quite accurate enough for COSC certification, but it shows very uniform rate behavior in all situations.



The movement, made in house, has two barrels and a power reserve of 72 hours.

The movement, which measures 31 mm in diameter and is 7.9 mm thick, is housed in a shiny stainless-steel case that is 42.9 mm wide. The bezel is narrow, leaving plenty of room for the dial to display the time and its other functions. The crystal is domed and made of sapphire that's nonreflective on both sides. The back has a window of sapphire and is fastened by six screws. The case is water resistant to 30 meters, which is somewhat low for a sports watch. It looks most impressive when viewed from the side. From that angle, you can see the watch's skeletonized lugs, a feature found on other watches in the TimeWalker collection. Because of the way they're constructed, these lugs must be screwed to the case. Concave above and convex below, they look very attractive and also ensure that the 15.4-mm-thick case can be comfortably strapped to its wearer's wrist. The bracelet, made of stainless steel, is securely fastened to the lugs by socket screws with heads shaped like the brand's logo, which represents the snow cap on Mont Blanc. The bracelet is distinctive in its design, combining narrow and wide links to create what look like rollers when viewed from the side. It has a double-folding clasp that can be easily opened by pushing its lateral pressure points.

Montblanc's logo is also present as a lacquer inlay on the crown, which is cut with grooves and squares along its sides. You can use this crown to manually wind the watch easily. The case has a slightly conical shape, so the crown's tube enters the interi-

or of the case via a kind of cylinder, which is flush with the case and thus invisible when the watch is viewed from above, but extends a bit in the rear. It has an indentation there so a fingernail can be easily slipped between it and the side to extract the crown. The date, which appears in white on a black field in a window at 9 o'clock, changes gradually rather than instantaneously, starting about 30 minutes before midnight and ending approximately 60 minutes after.

The chronograph operates neatly using two cylindrical pushers with rounded tops. Gentle pressure on the push-piece at 2 o'clock starts and stops the stopwatch function. Somewhat more force is needed to trigger the flyback and reset function by pressing the pusher at 4 o'clock. This seems somewhat unexpected for a column-wheel chronograph, but the switching processes run securely. And even if you can't see with your naked eye what Montblanc describes as the "spectacular return of the chronograph's two centrally axial elapsed-time hands," you cannot help but feel respect for so much high-mechanical technology and its manifestations on this watch's dial. The only flaw (and it's more than just a superficial one) is the occasionally poor legibility, which Montblanc fortunately has already taken steps to improve. ○



Scan here to read a profile of Montblanc's watch operations.
<http://www.watchtime.com/?p=24696>







WORN HUNT

The Gefica from Bulgari was conceived as a watch to wear while hunting big game. How does it perform in the urban jungle?

BY MARTINA RICHTER

PHOTOS BY ZUCKERFABRIK FOTODESIGN

Pros

- + Good rates for a retrograde watch
- + Interesting combination of materials
- + Unconventional design

Cons

- Not legible in the dark
- High price



A combination of titanium and bronze encase Gérald Genta caliber 1006.

\$

stainless steel, rose gold, titanium – watch enthusiasts expect to see certain materials in a fine timepiece. Bronze, however, is not a top contender. Yet it's bronze that first meets the eye with the Bulgari Gefica, an unusual and innovative luxury watch that re-thinks some of the conventions of haute horlogerie.

The Gefica dates back to 1988. The story goes that three friends on a safari in Africa decided they wanted a fine watch they could wear while hunting: one that would not reflect sunlight and thereby scare off big game. Matte bronze is nearly non-reflective, even in bright sunshine, which makes it ideal for a hunter who doesn't want to draw attention to himself. (The unusual name, "Gefica," was coined by combining the three friends' last names: Geoffroy, Fissore, and Canali.) Famed watch designer Gérald Genta conceived the watch and introduced it under his Gérald Genta watch brand. Bulgari bought the Gérald Genta brand in 1999 and brought back the Gefica in 2007.

A first glance at this unconventional watch, a limited edition of 199 pieces, may leave the wearer at a loss, since the Gefica doesn't display hours and minutes in the conventional way. The top half of the display features a mushroom-shaped window with two center-mounted hands. While the red seconds hand functions normally, circling the dial once per minute, the pierced titanium minutes hand traces an arc within the 180-degree window, jumping backward at the end of every hour to return from the 3 o'clock to the 9 o'clock position. The hour numeral appears against a steely background in a round display at the top of the window.

These functions trace their ancestry back to the 2007 version of the Gérald Genta Gefica Safari, which still exists today as the Bulgari Gefica Bi-Retro. (The Gérald Genta brand has been folded into the Bulgari brand and no longer exists as a separate entity.) The Gefica does not have the retrograde date seen on the Bi-Retro, but instead includes new features on the lower part of the dial: a second time zone and a moon-phase display.

The time in the second time zone can be reset easily by pressing a large titanium push-piece at 8 o'clock. To adjust the moon-phase display, you press a button set into the side of the case at 4:30. A similar button at 10 o'clock can advance the jumping hour in the central window, but it's much more enjoyable to adjust the time via the crown, since that enables you to admire the minutes hand's retrograde leap.

The wearer must be careful to differentiate between the numerals on the display, though. The "60" at the top of the dial marks the 60th second, whereas the large "60" at 3 o'clock refers to the minutes. This is distinct from prior versions of the Gefica: the earlier, Gérald Genta-branded model did not include a calibrated scale for the seconds. The numerals on the hour disk have changed, too, replacing the art deco font with a modern style that is better suited to the Bulgari brand. The pierced, teardrop-shaped minutes hand (and its smaller counterpart in the second-time-zone subdial) still recalls Genta's touch.



*Jumping hours
are shown in a
round aperture;
retrograde
minutes in a
180-degree arc.*

SPECS

BULGARI GEFICA

Manufacturer: Bulgari Horlogerie SA,
Chemins des Labours 5, 2350
Saignelégier, Switzerland

Reference number: BGF47BBLMPGMT

Functions: Jumping hours, retrograde
minutes, central seconds, second time
zone, moon-phase display

Movement: Gérald Genta 1006
automatic movement; 28,800 vph (4 Hz);
42 jewels; Kif shock protection; flat
Nivarox hairspring, Glucydur balance;
45-hour power reserve; diameter =
25.6 mm; height = 5.98 mm

Case: Bronze/titanium case; domed
nonreflective sapphire crystal, sapphire
caseback; water resistant to 100 m

Strap and clasp: Alligator strap with
double-folding titanium clasp

Rate results:

(Deviations in seconds per 24 hours,
when fully wound/after 24 hours)

Dial up	+3.7 / +9.7
Dial down	+9.8 / +13.8
Crown up	+4.9 / +4.6
Crown down	+10.2 / +12.2
Crown left	+7.4 / +2.3
Greatest deviation of rate	6.5 / 11.5
Average deviation	+7.2 / +8.5
Average amplitude:	
Flat positions	316° / 277°
Hanging positions	277° / 240°

Dimensions: Diameter = 46.5 mm,
height = 19.8 mm

Price: \$20,200 (limited edition of 199
pieces)

THE DESIGN IS METICULOUS and elegant. The minutes hand's largest hole is just wide enough to let you view the circular hour window through its aperture each time the hand reaches the 30th minute. A silvery rim encircles the hour window, and a similar band marks the silhouette of the shiny black "mushroom."

This central field is surrounded by a broadly sloping flange that makes it easier to see the scales for the seconds and minutes. The flange is pierced to accommodate the moon-phase and second-time-zone subdials, but its slope remains the same around these displays. The slim red seconds hand is specially curved so it can sweep over the sloped flange without grazing it, and the tip of the minutes hand likewise has a slight upward bend.

The outside of the watch is also very attractive. Although the case does not reflect much light, its size – 46.5 mm in diameter and 19.8 mm in height – makes it large enough to catch the eye.



The folding clasp is asymmetric and made of titanium.

It fits comfortably on the wrist, due to its big lugs that curve downward into its alligator strap. This strap is reinforced where it joins the lugs and is securely closed by an asymmetrical double-folding clasp made of titanium.

The bezel and middle piece of the case are also made of matte bronze. A combination of titanium and bronze is used on the caseback, on the crown, and as a peripheral ring below the bezel. The Gefica of 2007 was the first watch to combine bronze and titanium.

The bronze alloy used in the Gefica contains a very high percentage of copper (over 90 percent). Bronze changes color over time. On our tested watch, for example, these changes appear as attractive irregularities in the coloration of flat surfaces and as paler edges and darker spots on corners and ends. A patina gradually appears on the bezel and the middle part of the case.

The crown and the ring underneath the bezel both have protruding beads; over time, these accentuate the titanium more than the bronze. The beads make the crown easy to grasp and turn, but they're a red herring on the bezel, which does not rotate. The caseback likewise cannot be twisted off, fixed as it is with eight five-sided screws. This secure back contributes to the watch's 100-meter water resistance.

LOOSENING THE SCREWS, one finds Gérald Genta caliber 1006, which is based on a Girard-Perregaux automatic movement and has a modular addition. This movement's roots go back to the 1990s. Several patents protect it, and the jumping mechanisms were improved as the years went by.

A successful retrograde display is no small feat. The mechanism underlying it is a little finger that moves along the periphery of a cam throughout a specific interval (in this instance, one hour). When the interval has elapsed, the finger drops off a step on the cam. This explanation sounds simple enough, but a retrograde display in fact qualifies as a *petite complication*. Its construction occupies space and requires switching power, and this force must be properly distributed so that the retrograde hand will snap accurately to its intended starting point rather than overrunning the mark or rebounding from it. When the minutes hand reaches its end position, the aforementioned finger falls off the step on the cam, which is mounted on the wheel that was originally intended for a conventionally circling minutes hand. The added cam prevents the minutes hand from completing the second half of its circle and instead sends the hand quickly back to its starting position. The timing machine found very little decline in amplitude due to the retrograde mechanism's hourly leaps; the maximum decline was only 20 degrees.

As the movement was refined over the years, another priority was creating safety systems to guard against human error in setting the time. For example, if the watch is running and the wearer presses the button at 10 o'clock to reset the jumping

THE WATCH'S MOVEMENT, CALIBER 1006, IS BASED ON AN AUTOMATIC CALIBER FROM GIRARD-PERREGAUX.

hour, the minutes display remains unchanged even if the minutes hand is nearing the "60." This is a sensible function for travelers who frequent multiple time zones. It's even more practical if the wearer has set his or her home time as the second zone in the auxiliary display, because the hand on this subdial remains unaffected by manual adjustments of the jumping hour. One can set the home time in the subdial by pressing the button at 8 o'clock. When adjusting the primary time via the crown, the second time zone changes along with it. This guarantees that the time in a previously selected zone stays synchronized. Pulling the crown out also automatically stops the seconds hand.

In our timing test, we found that the rate results are quite good for a retrograde timepiece. When the Gefica is fully wound, the timing machine calculated an average daily gain of 7.2 seconds, and the greatest deviation between the various positions was 6.5 seconds. The fully wound watch achieved al-

most equally good results on the wrist, although its rate increased slightly after it was allowed to run for 24 hours without winding. In this situation, caliber 1006 falls somewhat short of chronometer-worthy performance, but its rate behavior was well balanced and its amplitudes quite stable.

The movement is pleasant to look at, too. A wearer peering through the sapphire caseback will find that all visible bridges and cocks, as well as the rotor, are completely decorated with concentric circular graining done by hand. Although the base caliber comes from Girard-Perregaux, it arrives at Bulgari's factory as a kit, not a complete movement, in order to receive final processing, reassembly and fine adjustment. Various engravings on the rotor and the caseback confirm the movement's identity: even if it's camouflaged in Bulgari guise, this is still a Gérald Genta caliber. And while the price of \$20,200 puts the Gefica in an elite class, the watch's design and unusual technology do seem to justify its cost. ○



Scan here to read a WatchTime.com story about another watch in Bulgari's Gérald Genta collection: the Octo Maserati Special Edition.
<http://www.watchtime.com/?p=17172>



Diverse displays: jumping hour, retrograde minutes, central seconds, double moon and second time zone



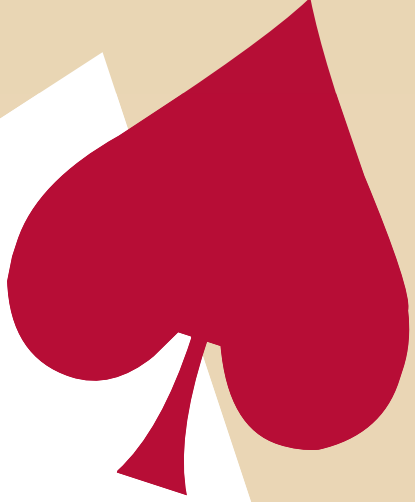


Pros

- + Beautiful *manufacture* movement with Geneva Seal
- + Interesting design
- + Good craftsmanship

Cons

- No stop-seconds function
- The rate was consistently slow.



*How does Roger Dubuis's
Chronograph La Monégasque,
named for the glamorous
gambling Mecca of Monaco,
fare in the high-stakes game
of a WatchTime test?*

BY ALEXANDER KRUPP
PHOTOS BY NIK SCHÖLZEL

ROCK ON



Roger Dubuis Chronograph La Monégasque



The red tachymeter scale is the only contrast color on the gray dial.

SPECS

ROGER DUBUIS CHRONOGRAPH
LA MONÉGASQUE

Manufacturer: Manufacture Roger Dubuis, Rue André-de-Garrini 2, CH-1217 Geneva, Switzerland

Reference number:
MG44-680-90-00/0ER01/B

Functions: Hours, minutes, small seconds; chronograph with counter for 30 elapsed minutes

Movement: Manufacture caliber RD680, automatic with microrotor, Geneva Seal; 28,800 vph, 42 jewels, fine adjustment via index, Incabloc shock absorption, column wheel, vertical coupling, 48-hour power reserve, diameter = 31 mm, height = 6.3 mm

Case: Stainless steel with domed sapphire crystal that's nonreflective on both sides, four screws hold the back in place, back includes a sapphire window; water resistant to 50 meters

Strap and clasp: Hand-sewn and fully rembordered alligator strap with safety folding clasp made of stainless steel

Rate test:

(Deviations in seconds per 24 hours)
With chronograph switched off / on

Dial up	-3 / -3
Dial down	-4 / -4
Crown up	0 / +1
Crown down	-1 / -2
Crown left	-3 / -3
Crown right	-5 / -5
Greatest deviation of rate	5 / 6
Average deviation	-2.7 / -2.7
Average amplitude:	
Flat positions	286° / 285°
Hanging positions	253° / 253°

Dimensions: Diameter = 44 mm, height = 13.2 mm, weight = 123 g

Variations: Rose gold with bezel made of titanium coated with black PVD (\$40,100)

Price: \$25,200


ith a name that means “the lady from Monaco,” one would expect Roger Dubuis’s new collection to have all the flash and sparkle of a Monte Carlo casino. La Monégasque is meant to pay homage to the luxurious world of Monaco and everything it brings to mind: fast cars on narrow cliff roads over the Mediterranean, high-stakes games of baccarat, James Bond, Grace Kelly, and the like. So it comes as a surprise that, compared to many of the other collections from the usually flamboyant Roger Dubuis, the Chronograph La Monégasque is decidedly understated.

In fact, its only colorful accent is a red tachymeter scale printed on the flange along the perimeter of the dial. The rest of the face is gray, black and silver, with white scales on the main dial and subdials. One has to look past the immediately obvious in order to appreciate some of the design’s appealing details: sunburst decoration, tasteful white rings in the subdials, and an hour ring with circular satin finishing. Like the numbers on a roulette wheel, the applied hour numerals are laid atop lacquered fields. The three

silver-colored hands for the hour, minutes and running seconds and the little hand on the elapsed-minutes subdial each have a longitudinal ridge down the midline to separate the hand’s two facets. The elapsed-seconds hand has a lacquered white tip.

The quality of craftsmanship lavished on the dial is very high, but when we examined it through a loupe we found a tiny drip in the lacquered surface of the “2” on the hour ring, as well as a very slight irregularity in the lacquer on the tip of the seconds hand.

THE CRAFTSMANSHIP OF the cushion-shaped steel case, which is 44 mm wide, is even better than that of the dial – almost immaculate, in fact. Although the case has corners and edges, its shape as a whole is fluent and soft. This impression is further underscored by the downwardly curving, gently rounded lugs. On the bezel, the chronograph push-pieces and the sides and back of the case, certain facets have been polished with great care to stand out from largely satin-finished components.



The 31-mm caliber RD680 bears the Geneva Seal as a sign of its superior craftsmanship.

The very slim push-pieces have been neatly inserted into the case's milled apertures so that there is no gap around them. The upper push-piece runs as smoothly as a hot knife through butter, but somewhat more force is needed to operate the lower button. The large fluted crown is not threaded and can be easily pulled; because it doesn't screw into the case, though, the watch is not especially water resistant. Still, its rating of 50 meters is generally high enough for a luxury watch like this one.

The case fits comfortably against the wrist. The caseback is held in place by four screws with custom heads. It holds a sapphire window through which you can see the in-house caliber RD680. Thanks to its attractively open architecture, the movement offers an unobstructed view of its chronograph mechanism.

The chronograph is controlled via a column wheel, while vertical coupling (visible to the right of the balance in the photo) comes into play when the chronograph is engaged. This type of coupling guarantees that the chronograph seconds hand starts without the shudder often seen in chronographs with horizontal coupling.



The strap is impeccably crafted, but the reptilian scales aren't so attractive.

The movement components are beautifully finished. The edges are perfectly beveled and polished and the surfaces have immaculately executed Geneva waves and cloud patterns. The screws have polished heads and the chronograph levers a satiny, brushed finish. Thanks to the careful workmanship, this movement, like all Roger Dubuis movements, bears the Geneva Seal, which is visible above the watch's balance.

THERE ARE, HOWEVER, several aspects of the RD680 movement that are disappointing. The absence of a stop-seconds function makes it difficult, if not impossible, to set the time precisely, since the seconds hand continues running even when the crown has been pulled out. This might be understandable in a model developed a long time ago, but in a new one it is inexcusable.

Another shortcoming is the adjustment, which is carried out via a very simple index; it lacks any sort of additional mechanism for finely setting its position. A *manufacture* watch in this price category ought to have a freely oscillating balance with regulating screws along its rim or a swan's neck fine adjustment mechanism. Although Roger Dubuis employs a swan's neck in its other calibers, there isn't room for one in this movement because of the adjacent microrotor. Other self-winding calibers from this brand have a centrally axial rotor that turns above the escapement.

**THE MOVEMENT,
MADE IN HOUSE,
HAS A COLUMN
WHEEL AND
VERTICAL COUPLING.**



The third failing of this otherwise excellent movement is its less-than-perfect rate performance. Our Witschi timing machine calculated the deviation among the several positions at an acceptable value of five seconds with the chronograph off and six seconds with it on. Unfortunately, though, the watch consistently ran 2.7 seconds slow, both on the timing machine (chronograph off or on) and on the wrist. (This slight daily loss isn't necessarily a severe problem, since a luxury watch is usually taken off and left at rest for a few days, then reset the next time it's worn.)

On the other hand, the rate values and amplitude were nearly identical in each position, both with and without the chronograph running. This consistency means that the chronograph's mechanism was engineered to conserve energy. It also confirms what the Geneva Seal certifies: that the movement's components are so well finished that they interact with very little friction.

We found that the watch is often hard to read. There's not enough contrast between the dial and the hands, and the dark numerals in the subdials are hardly visible. On the plus side, though, is the fact that each hand is exactly the right length – a fine detail that's often left out on luxury watches. Even brands famed for their highly functional timepieces often fail to make the tips of all hands extend to the inner ends of the strokes on their designated scales. The care put into the hands' lengths improves legibility, as does the white tip of the central elapsed-seconds hand, which contrasts with the gray hues on the rest of the dial.

The watch is very pleasant to wear. The caseback, strap and safety folding clasp all fit closely and comfortably on the wrist. Furthermore, both the strap, which is made of alligator, and its closure, are beautifully crafted. The strap is fully rembordered and the clasp milled from a solid block of metal and neatly polished. The only unsightly element of the watch we tested was the dull finish and unattractive reptilian scales on the strap. Horological aesthetes would regard this as a minor lapse of attention on an otherwise beautifully made timepiece.

In all other details, one certainly cannot accuse the watchmakers of being inattentive. All components are distinguished by very high quality and each one is meticulously matched with its peers. The Chronograph La Monégasque functions well, looks good and is well crafted, but its price (\$25,200) nonetheless seems somewhat high given that the brand is less well-known than some of its competitors. ○

SCORES

ROGER DUBUIS CHRONOGRAPH LA MONÉGASQUE

Strap and clasp (max. 10 points):

The hand-sewn and fully rembordered strap is extremely well crafted, but the upper leather isn't very attractive; the safety folding clasp is well made and clicks shut firmly.

8

Operation (5): The crown and the start-stop button are very convenient to operate, but the zero-reset button demands somewhat more force; this watch has no stop-seconds function.

4

Case (10): The elegant and multifaceted case has a sapphire crystal and caseback, appealingly shaped push-pieces and immaculate craftsmanship.

10

Design (15): Well-balanced and unostentatious but eye-catching nonetheless.

15

Legibility (5): The lengths of the hands are perfect, but all hands (and the numerals on the subdials) provide insufficient contrast against the background of the dial; no luminous material.

2

Wearing comfort (10): The watch is very comfortable considering its size, its sharp angles and its folding clasp.

9

Movement (20): This *manufacture* chronograph, which bears the Geneva Seal, deserves praise for its column wheel, vertical coupling, microrotor and impeccable finishing of all components, but the index for fine adjustment is too rudimentary.

17

Rate results (10): The difference among the various positions was low and the chronograph caused nearly no decline in the amplitude, but we deducted points because the watch ran too slowly.

6

Overall value (15): This watch is very good, but also very expensive – and this brand is less well-known than many of its competitors.

10

TOTAL:

81 POINTS

INDEPENDENT TRIALS



Think it's glamorous being an independent watchmaker? Ask one who's been at it for a decade, Peter Speake-Marin.

BY NORMA BUCHANAN

Peter Speake-Marin. In the background is a watchmaker's topping tool, a design motif in his watches.



P

eter Speake-Marin buys his plane tickets in bulk. The British-born, Swiss-based watchmaker purchases round-the-world, 16-flight passes that take him to Vietnam, Malaysia, India, Australia, the United States, wherever there are watches to be sold, exhibitions to attend, prospects to be explored.

Speake-Marin belongs to the self-starting, self-reliant, self-made, jet-lag-suffering gaggle of watchmakers who make and sell watches under their own names. They're an intrepid bunch, enduring everything from shaky suppliers to a chronic diet of airline food. If you've ever wondered what it was like for a watchmaker to build his own brand from the bottom up, ask Speake-Marin, who's been at it for a decade.

Born in Essex, trained in watchmaking at London's Hackney Technical College and at WOSTEP in Neuchâtel, Speake-Marin started his career in the Piccadilly section of London restoring timepieces for the prominent antiques dealer George Somlo. He spent seven years there, working on everything from antique Breguet and Graham pocketwatches to Mickey Mouse wristwatches from the 1950s. That experience formed the bedrock of everything he has done since, he says. After that, he spent four years at Renaud & Papi in Le Locle, making, among other things, minute repeaters and tourbillons.



An original
Piccadilly model

But working on other people's watches wasn't enough. He wanted to prove to himself that he could design and make his own. In his spare time, he began working on a tourbillon pocketwatch with a heart-shaped hour hand, a tourbillon cage shaped like the wheel on a watchmaker's topping tool, and a thick, cylindrical case. He finished the watch in 2000. (He later dubbed it the "Foundation" watch because it incorporated ideas he would use in future watches.)

In 2001, he had a fateful encounter: he met the well-known complications specialist Philippe Dufour. At Dufour's urging, he agreed to exhibit the following year with the AHCI, the celebrated club of avant-garde watchmakers that has served as a springboard for many now-famous independent watchmakers. Realizing that his pocketwatch would have limited commercial appeal for Basel visitors, he designed a wristwatch and named it "Piccadilly" in honor of his fruitful years doing restoration work in London.

He took his Piccadilly to Basel. That's when he started to learn about the real-life nitty-gritty of running your own brand.

The back of the Spirit
watch bears Speake-
Marin's recession-
survival motto "Fight,
love & persevere."



Speake-Marin brought out his own movement, the SM2, in 2009.



“You find out that when you launch, everybody talks about you. You have every retailer in the world coming to you and saying they want to buy from you. Within two years, however, you discover what the reality is,” he says. That reality: lots of fuss and orders promised but never placed. “And it’s the same for virtually every new independent watchmaker. There was a period [before the recent recession] that whenever a new watchmaker became a member of the AHCI, there was a huge amount of noise produced. The year following me, it was [another independent watchmaker],” he says. “Then he was the new kid on the block and I could see it all happening again for him.”

The shouting died down but Speake-Marin, who had set up his workshop in Rolle, Switzerland, on the banks of Lake Geneva (he has since moved it to nearby Bursins), carried on with his mission, making extremely small series of high-end watches, often designed specifically for a particular market or customer.

The watches bore certain distinguishing features, most borrowed from his original tourbillon pocketwatch: winding rotors or other components shaped like the wheel on a topping tool, which watchmakers once used to reshape wheel teeth; heart-shaped hour hands (symbolizing his love for watchmaking); and cylindrical cases with distinctive lugs and large, “pleated,” i.e., deeply fluted, crowns. Some of the dials were classic looking, coated with white enamel and bearing elegant chapter rings and Roman numerals. Others belonged to a different genre entirely, and, starting in 2006, bore mosaics made of colored stones or drag-

ons sculpted out of gold. One series of watches had birds and beasts painted onto the dials using the Japanese technique of maki-e. Harking back to his days at Somlo’s and at Renaud & Papi, he brought out high complications, including a perpetual calendar and tourbillon. His production remained extremely limited (even now, a decade after founding the brand, he makes only about 400 pieces per year).

He used as his base movement the ETA 2824, modified by Soprod, which he then further enhanced and finished by hand. (He now uses Technotime movements instead.)

But, as he was learning, making watches is only part of having your own watch brand. “When you start a company, you have to learn to do everything

yourself. You have to suddenly learn about sending watches all over the world. You discover that there are different requirements if it’s a gold watch or a steel watch. A metal bracelet as opposed to a leather strap. A [calfskin] strap or a crocodile strap. It’s never-ending. To sell half a dozen watches, you have to become an expert in the exportation of product.”

His job description also included accountant, salesman, publicist, photographer, marketing manager and purchasing agent, dealing with the 30-odd suppliers from whom he bought dials, hands, cases, movement components for modifying his movements, etc. “You have to become a master of everything,” he says.

FOR THE FIRST FIVE YEARS, he continued to work for other watch brands. He helped Max Büsser, former head of the timepiece division at Harry Winston, set up his company, MB&F, and designed for Harry Winston the movement for the Excenter tourbillon, introduced in 2005. Speake-Marin spent two years helping to develop the Maitres du Temps brand with Steven Holtzman. Each job he took gen-

*“THERE ARE PEOPLE WHO BELIEVE
THAT IN FIVE TO 10 YEARS, 50 PERCENT
OF THE RETAILERS YOU NOW SEE
WILL NO LONGER EXIST.”*

erated more publicity and led to another job. He was having a great time, learning more about watchmaking from each successive project and enjoying his growing fame. “In a sense, I shouldn’t have done all these things because it meant deviating from my own brand and my own work, but I loved it,” he says.

Finally, he cut his ties with other brands so he could focus on his own. His timing was not good: the year was 2008; the collapse of Lehman Bros. and ensuing financial calamity were just months away. “I made the decision to stop working for these other companies, and at exactly the same time we hit the worst crisis in the [recent] history of the watch industry,” he says.

The recession caused problems far beyond the obvious ones of smaller orders, or none at all. Components suppliers were particularly hard hit; companies Speake-Marin had depended on shut down or declared bankruptcy. Those that didn’t were limping along. “The morale in companies died. We would make pieces that would be validated [tested and found to work properly], and in six months they would fall apart. And the reason was that people hadn’t done the simplest things. So a component that was supposed to be hard wasn’t. After a time, the teeth would fall apart.”

Speake-Marin hung in despite it all. In fact, he doubled down on his decision to go it alone. In 2009, in the thick of the recession, he came out with his own movement, caliber SM2. It had required hundreds of thousands of dollars to develop. The movement, an automatic with a power reserve of three days, has the topping-tool-shaped rotor that has become the brand’s signature.

When the worst of the recession was over, he celebrated by launching a new watch called Spirit, dedicated to the principle of keeping a stiff upper lip. The motto, “Fight, love & persevere,” appears on the watch’s caseback. “The Spirit is very much a result of that whole period,” says Speake-Marin.

THE RECESSION HAS changed Speake-Marin’s world, and that of all independents, he says. Before the collapse, people would buy just about anything that ticked. “Little brands were popping up all over the place and bigger brands could make virtually anything and sell it. It was kind of crazy. And then the bubble burst and everything changed.” Collectors, even the most enthusiastic, no longer spend with wild abandon. They’re especially leery of smaller brands, he says, because there’s no telling how long they’ll be around.

“When I started [showing] at Basel, people would ask, ‘Why is your watch different from others?’ or ‘What are you working on for next year?’ The ninth or 10th question would be, ‘What happens if the watch stops? You’re a small independent. How do you repair it?’ Today,

The rotor of the Serpent Calendar is shaped like a topping-tool wheel. The movement was made by Technotime according to Speake-Marin’s specifications.



that’s the first or second question. That for me is enormous. And they’re right, it should be the first or second question ... It’s interesting because it shows a shift in mentality between cloud cuckoo land and basic reality ... The amount of money being spent is still massive, but it tends less and less to go to the smaller brands that have been around a short time.”

Consolidation among components suppliers has also made life harder for independents, he says. Large watch companies have been buying up many of them and as a result smaller brands no longer have access to their products. That, plus the shaky financial footing of some small



A watch inspired
by the Dong Son
drums of Vietnam



suppliers, means an independent has to be forever on the hunt for alternative sources of components. “We’re always looking around to see what the options are because you don’t know from one day to the next what’s going to happen,” he says.

The retail scene has changed, too. The huge number of large or group-owned brands opening their own boutiques leaves more room in traditional, multi-brand retailers for brands like his. But, in the long term, it probably means fewer traditional retailers. “There are people who believe that in the next five to 10 years, 50 percent of the retailers you now see will no longer exist,” he says.

All this will make for hard sledding for newcomers. “To launch another new

roughly 20 – throughout the world. “We’re now in transition from being an individual to becoming a brand and a company,” he says.

He continues to make very small series of watches designed for specific retailers. These include a group of 18

chapter in the company’s evolution. It’s called the Renaissance Tourbillon Minute Repeater, and it has the brand’s signature features: Piccadilly case, pleated crown, heart-shaped hour hand, and, on the tourbillon cage, a topping-tool motif. The movement was made to Speake-Marin’s specifications by La Fabrique du Temps, a high-end maker of complicated movements, founded in 2007 in Geneva by two of the three partners in the now defunct movement maker BNB Concept. Each Renaissance watch is one-of-a-kind because it has unique engravings.

The Renaissance is the most complicated Speake-Marin watch so far. In the long term, however, he wants to make the brand more accessible, not less so. He aims to increase his production to about 1,000 watches per year, and to broaden his audience beyond rabid watch collectors. “I want to sell to people who just want a nice watch,” he says. ○

“A LOT OF PEOPLE WHO WERE INDEPENDENT ARE LEAVING THEIR INDEPENDENT STATUS ... BECAUSE THE MARKET IS THAT TOUGH.”

brand in the market today, as brutally aggressive as it is, would be something that I personally would not recommend to anybody. And a lot of people that were independent are leaving their independent status and going back to working with other companies, because the market is that tough.”

For him, with his decade’s worth of exposure, it’s a different story, he says. He has embarked on phase two of his brand-building project, expanding his staff so he no longer has to handle all tasks himself, or oversee his business in his accounts –

watches inspired by Dong Son drums, bronze drums that were made thousands of years ago in Vietnam and have become important cultural artifacts there. Speake-Marin made them for a Vietnamese retailer who requested them. “We don’t have a single mono-product the way Max Büsser, say, with his Thunderbolt, does,” says Speake-Marin. His watches start at around \$12,000; and those equipped with his own movement at about \$32,000.

Last year, he launched another celebratory watch, this one to mark the new

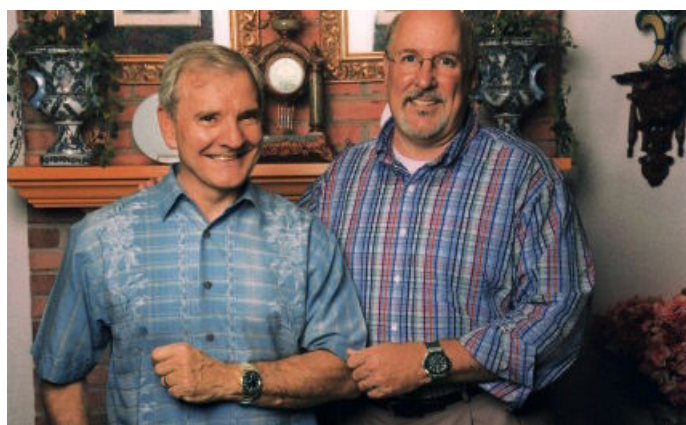


Scan here to hear an excerpt from WatchTime’s interview with Peter Speake-Marin.
<http://www.watchtime.com/?p=24523>





Henry Lin wears his Rolex Deepsea while meeting retired LA Lakers player Mychal Thompson at an event before a Lakers game. Thompson wears a Debaufre Airforce Orange.



Tom Catalano, left, and Doug Brooks from Fairfax, Virginia, celebrated their retirements by purchasing the watches of their dreams. Catalano wears his Rolex Submariner and Brooks is wearing his Hublot Big Bang.



David Fetz wears his Bremont Supermarine while visiting the North Rim of the Grand Canyon in Arizona.



Katarina Meidell wears her TAG Heuer Formula 1 Lady while skiing the Drottningleden trail in Hemavan, Sweden.



Dewayne Bollen and Robert Donaldson both bought watches last summer while on family cruises. Bollen, right, is wearing his new Breitling Navitimer 01 and Donaldson his TAG Heuer Carrera.



Paul McCallum wears his Omega Planet Ocean while diving at Molokini Crater in Maui, Hawaii.



Will Jones wears his Ulysse Nardin Maxi Marine Diver aboard the Port Jefferson Ferry on Long Island Sound, with daughters Maddie and Phoebe.



On a trip to San Francisco, Jonathan Hope, left, wears a Breitling Cockpit, Andrew Hope wears a Glashütte Original Sport Evolution, and Courtney Hope wears a Girard-Perregaux Vintage 1945.



Facetime Galleries

To submit a photo, please send your image to photo@watchtime.com with a short description identifying each person in the photo and the watch each one is wearing. Please give the first and last name of the wearer and the brand and model of the watch. If the photo was taken at an event, please specify when and where it was held. Only clear images in which both the face of the watch and the wearer are visible will be considered for publication. Images must be in JPEG format, no smaller than 1 MB. Only the best-quality and most interesting photos will be considered.



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13 People to Watch in '13

We ring in the new year with a list of a baker's dozen watch folks we think will be worth watching in 2013.

- **Stanislas de Quercize.** The former head of Van Cleef & Arpels moved into the most important job in the Richemont Group on Jan. 1 – global CEO of Cartier. His mission: make sure the gift that keeps on giving – the ultra-profitable Cartier brand – keeps on giving.

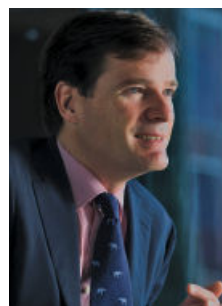
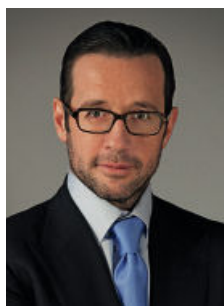
- **Johann Rupert.** The chairman of the Richemont Group returned to the CEO post in 2010, steering the group through the Great Recession. That done, he will relinquish CEO duties in April. So what will he do with all that free time?

- **Michele Sofisti.** The watch maven of the giant PPR Group runs Gucci's watch and jewelry division. In 2010, when PPR took over the Sowind Group (Girard-Perregaux and JeanRichard), Sofisti was given the additional task of turning around the underperforming brands. He's been busy. We'll see what he's been up to when he unveils the new Girard-Perregaux at Baselworld in April.

- **François-Henri Pinault.** He's the head of PPR, one of the world's largest luxury-goods conglomerates, but his watch holdings only consist of GP, JR, Gucci (see above) and Boucheron. You call that a watch group? It's time for a watch-company shopping spree in Switzerland, FHP.

- **Tom Kartsotis.** The co-founder and long-time CEO of Fossil Inc., who left the firm in 2010, is likely to make a splash this year with a new line of analog quartz watches made in Detroit under the all-American Shinola brand. His goals are simple: revive Detroit, the Shinola brand, and American watch manufacturing at one fell swoop. Piece of cake.

- **François Bennaïm.** He put Audemars Piguet on the luxury-watch map in the United States. Last year, after the abrupt departure of CEO Philippe Merk, AP management moved Bennaïm from New York to AP headquarters in the Vallée de Joux to run both America and the world



From left: François Bennaïm, Michele Sofisti, Peter Stas, Stanislas de Quercize

for the gold-chip independent Swiss brand. But that's a wicked commute. Something's got to give. Le Brassus or the Big Apple: What's it going to be, FB?

- **Patrik Ducrey.** He heads Switzerland's Competition Commission (COMCO) investigation into whether the Swatch Group's plan to reduce supplies of movements and components to third parties violates the Swiss Cartel Act. (The Swatch Group requested the investigation.) The ruling will come this year. Everyone expects COMCO to give Swatch the green light to reduce supplies, but over time. One scenario: reductions until 2020, when movement sales will end completely and sales of assortments (hairsprings and escapements) will fall to 50 percent of 2010 quantities. But you never know. As Yogi Berra says, "It's not over till it's over."

- **Miguel Garcia.** He's the CEO of Sellita, the second largest producer of mechanical movements in Switzerland after ETA. Business is booming because of ETA cutbacks (see above). There's just one hitch. He buys assortments for his movements from Swatch Group's Nivarox. Now he's squeezed because of the cutbacks. So where does he get hairsprings for the million movements he has on back order?

- **Jean-Daniel Pasche.** The president of the Federation of the Swiss Watch Industry (FH) is waging a strong campaign for a stricter definition of the "Swiss-made" label. Pasche and most FH member companies want the Swiss government to revise the definition of "Swiss made" to require that the minimum rate of Swiss value in a watch

amounts to 60 percent of the production cost. The Swiss National Council approved the "60 percent rule" last year. The proposal now goes to the Council of States.

- **Peter Stas.** The founder and CEO of Frédérique Constant is a Dutch David battling Swiss Goliaths, advocating, he says, for producers of affordable Swiss watches. He has been outspoken against the Swatch Group movement and component cutbacks and against the FH's stricter "Swiss-made" definition. (See above.)

- **Ryota Aoyagi.** He is president and CEO of Japan's Citizen Watch Co., a firm that's been busy buying on the international market of late. In 2008, Citizen bought America's Bulova. Last year it bought the Swiss movement maker La Joux-Perret and its Arnold & Son brand. Inquiring minds want to know what Citizen will do with its new foothold in Switzerland.

- **Nick Hayek, Jr.** The CEO of the Swatch Group is the most powerful person in the watch world. The conglomerate he runs produces every component in a watch, 80 percent of the Swiss watch industry's movements, 18 brands ranging from Swatch to Breguet; and owns and operates more than 1,000 watch boutiques. How can you not watch?

- **Vladimir Putin.** The watch-loving president of Russia has a collection reportedly valued at \$700,000. He is known to spontaneously give away the watch on his wrist, often a Blancpain, to the hoi polloi he meets on the street. Ordinarily, we'd say you gotta love a guy like that. But not in this case. ○

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